

IV.
Golden Rules
OF
Medical Practice.

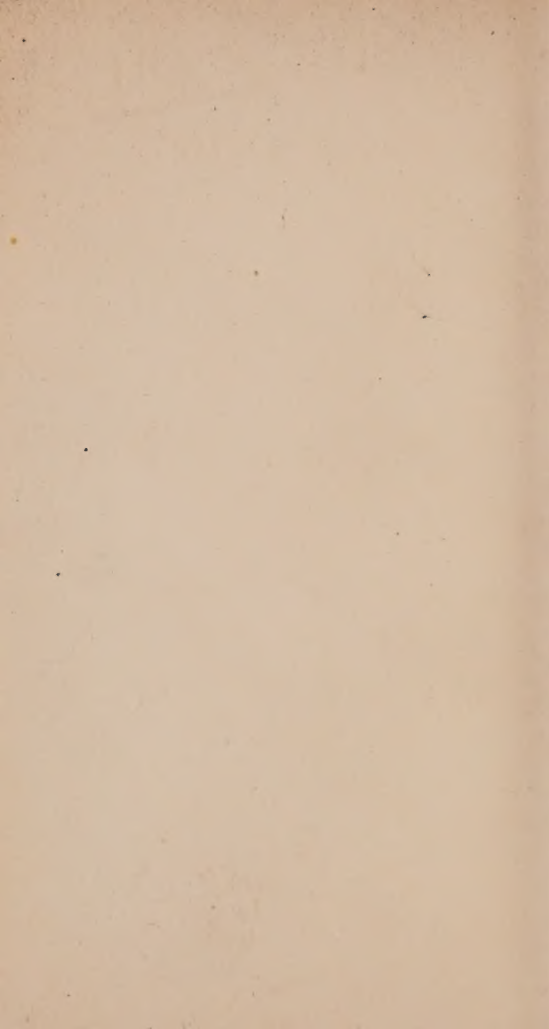
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GOLDEN RULES

OF

MEDICAL PRACTICE:

BY

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No. IV.

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PREFACE.

THE modern development of every branch of medical science has added to the burden of the present-day students, and text-books of medicine are already "as the sands by the sea-shore." Amid so much that is theory, the facts and necessary rules of the practice of medicine tend to become obscured.

At the request of the publishers, I have in the present booklet put together a few practical rules, which have at least the merit of some years of my experience as a practitioner and teacher of medicine.

LEWIS SMITH.

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Golden Rules of Medical Practice.

INTRODUCTORY.

EXAMINATION OF CASES.

Take nothing for granted.

Never hurry; remember mistakes in medicine are usually due to want of care, rather than want of skill.

Always feel both pulses: it takes no longer, and inequality, etc., may give an important early clue.

Carefully note the **pupils**; inequality, marked contraction, or dilatation, are important signs.

Examine your patients in a **good light**, if possible with your own face in shadow.

Notice everything; train your powers of observation in every possible way; quick, accurate observation is the key to successful diagnosis.

Examine **first** the part to which the patient refers his symptoms, and then, in order, the various systems.

Avoid "leading" questions: they often lead to trouble.

Make your patient as **comfortable** as possible in every way during the interview.

DIAGNOSIS.

Do not "jump"; a "shot" at a diagnosis is most often fatal to the marksman.

Never be ashamed to confess "I don't know," but be ashamed to have to confess "I have not examined."

Be thorough. Remember no fact about the patient is without possible importance. Collect all your data before making any diagnosis.

Of two probable diagnoses, *ceteris paribus* choose the **commoner**.

Strive to be exact. A diagnosis must sometimes be only a balance of probabilities, but do not shirk the responsibility of making that balance. Remember the "man who never makes mistakes never makes anything."

TREATMENT.

Do not forget **drugs** are often the least important part of treatment. A prescription is not the be-all, or end-all, or mend-all of medicine.

Study to be **precise**. A "light diet" or a "little stimulant" are meaningless terms, and in the popular mind capable of the wildest interpretation.

Never prescribe sedatives or sleeping-draughts loosely. Remember the danger of inducing **drug-habits**.

Make it a rule to use hypodermic injections of **morphia** as little as possible; whenever practicable order it as a draught or pill. Remember the increasing host of hopeless morpho-maniacs.

Remember that although to "treat" is an active verb, **masterly inactivity** may be the best treatment.

Do not forget you have to treat the **patient** as well as the disease.

Diagnosis first, treatment last, is a rule without any exception.

Do not despise the "**little things**" in treatment; whatever will make your patient more comfortable is worth doing.

Make your prescriptions as **palatable** as possible; there is no special virtue in a nauseating drug.

DISEASES OF THE KIDNEYS.

GENERAL RULES.

Remember that albuminuria, even when the patient is in a medical ward, does not necessarily denote Bright's disease.

Palpate both loins in cases of suspected kidney mischief.

Always use **catheter-drawn specimens** for accurate urine-testing in the case of females.

The presence of **casts**, other than hyaline, is always an indication of organic disease of kidneys.

The **amount of urine** passed is at least as important as its chemical analysis.

The **specific gravity** of urine is important as an indication of the amount of solids excreted by the kidneys; to be of value it should be estimated from a "twenty-four" hours' specimen.

In doubtful cases examine urine passed in your presence whenever possible.

Never omit a **naked-eye** examination of urine; experience will soon teach you many valuable inferences.

ALBUMINURIA.

In using the "**heat test**," always first see that the specimen is just acid. If not acid, a small amount of albumin may escape detection; if too acid, acid-albumin may be formed which is not precipitated by boiling.

Remember three fallacies of the nitric acid "**ring**" test.

1. A very concentrated urine may give a "**ring**" of nitrate of urea crystals. Distinguish from albumin by repeating the test with diluted urine.

2. The urine of patients taking cubebs, copaiba, etc., will give a "**ring**" due to resinous matter. Distinguish from albumin by adding alcohol; if due to albumin it remains, and *vice versa*.

3. Albumose gives a "**ring**." Distinguish by heating. Albumose disappears, albumin will remain.

Albuminuria is **always a sign of disease**, but the kidneys are not necessarily the seat of the disorder.

In investigating a case of albuminuria, first ascertain its **geographical source**. Is it the urethra (gonorrhœa, etc.), or bladder (cystitis, tubercle), or pelvis of kidney (pyelitis), or secreting substance of kidney proper? Having made sure that the albumin comes from the kidney itself, remember the disease may still be outside these organs. Is it due to drugs (turpentine, cantharides), or the result of pyrexia (many fevers, typhoid, pneumonia), or passive congestion (failing compensation of damaged heart)? Finally, if the disease be in the kidney itself, what is its nature (Bright's disease, tubercle, calculus, new growths)?

A careful **microscopical examination** of centrifugalized urine is imperative in every case of albuminuria to determine its source. Look for casts, blood, spermatozoa, crystals, etc.

The actual **quantity** of albumin present is of less importance than the fact that albumin is constantly present in the urine.

HÆMATURIA.

In all cases there are two essential problems:—

(a). To diagnose the **presence** of blood in the urine.

(b). To localize its **source**.

Never rely on the statement of a patient that he has “passed blood” in the water; such “blood” is, more often than not, concentrated urine, urates, or bile.

Blood may be added to urine for purposes of deception by hysterical persons or malingerers.

The urine of a healthy **menstruating woman** usually contains blood.

Microscopical examination is the test for blood in urine; without it, the absence of blood can never be positively asserted.

The **colour** is often a rough guide to the source of the blood. “**Smoky**” urine suggests a little bleeding from kidney; “**porter-coloured**” urine points to a renal origin, the brown tint arising from conversion of hæmoglobin into acid hæmatin by the acid sodium phosphate

of the urine; **bright red** urine means much blood, and may come from any part of the urinary tract.

Always endeavour to ascertain **relation of blood to micturition**. Initial hæmaturia suggests a **urethral** origin (acute urethritis, injury); terminal hæmaturia is characteristic of **prostatic** bleeding (congestion, calculus, tubercle, new growth); the blood and urine may or may not be intimately mixed in **vesical** hæmaturia (cystitis, tubercular ulceration, calculus, new growth); in hæmaturia of **renal** origin the blood and urine are intimately mixed, and renal casts are often present (acute nephritis, drugs, infarction, granular kidney, tubercle, calculus, new growths).

Profuse hæmaturia may be the first symptom complained of by a patient with **granular kidney**.

In cases of doubtful origin, and especially if the patient has been abroad, think of **Bilharzia hæmatobia**, and examine microscopically for the characteristic ova.

Never forget that hæmaturia may be only a symptom of such grave constitu-

tional diseases as scurvy, purpura, the specific fevers, hæmophilia, or leukæmia.

MOVABLE KIDNEY.

Strictly speaking, all kidneys are movable; the normal upward and downward range of movement varies.

A **pathologically movable** kidney is one which fails to re-ascend spontaneously when the diaphragm relaxes, and which does not regain its natural position unless either the patient lies down or some external pressure is brought to bear upon the abdomen.

The **degree** of such pathological movability varies within very wide limits.

Palpable, movable, or floating kidney are terms loosely applied according to the extent of the movability.

The severity of **symptoms** is in no way proportionate to the degree of movability.

Movable kidney is commonest in **women**, and is usually on the **right** side.

It is frequently present without

symptoms of any kind. If detected accidentally, leave the owner in happy ignorance of the abnormality.

A movable kidney is sometimes only a part of a **general enteroptosis**.

Very varied symptoms may be caused by a movable kidney; these include a constant, dull **ache** in the loin, **neurasthenic** symptoms, with dyspepsia, attacks of **belly pain** resembling appendicitis, or gastric ulcer or gall-stone colic, intermittent **hydronephrosis**, etc.

All abdominal symptoms in a patient with a movable kidney are not necessarily due to it. Test this by putting the patient to bed. Symptoms due to a misplaced kidney often disappear; if due to organic disease of other organs, change of position will have but little effect.

The **treatment** depends on the severity of symptoms. In many none is required; in some a diet resulting in increased fat-formation relieves; a properly-designed pad and bandage is found to ameliorate the symptoms of others. The surgical operation of nephrorrhaphy is the only cure of the condition.

ACUTE NEPHRITIS.

General œdema is common, but not invariable. Do not forget to look for œdema of the conjunctivæ.

In young subjects **scarlet fever** is a common cause. Always examine carefully all over for "peeling"; such patients are highly contagious.

Acute kidney inflammation is common in patients who are the subjects of **chronic nephritis**; therefore always examine arteries, heart, and fundi for its signs.

The immediate **prognosis** is usually good in adults. Death is rare in the acute stage. A few cases recover completely; the majority drift into chronic nephritis.

The **amount of albumin** in the urine is not *per se* a reliable guide to your patient's progress. Watch the quantity of urine, extent of anæmia, and for any suspicion of uræmic signs.

Effusion into pleuræ or peritoneum may occur at any time in acute nephritis; they are bad signs.

Pericarditis, œdematous laryngitis,

and uræmic convulsions are usually of fatal import.

As regards **Treatment**, remember no remedies are known which can directly control kidney inflammation. The main indication is to **rest the inflamed organs**. A carefully-guarded dietary, and the utilization of skin and bowels as excretory organs, are prime factors in this plan of campaign.

Diuretics, except water, should not be given. Alcohol in any form is inadmissible.

A dietary of milk and water is ideal. To rebellious patients bacon-fat, bread, butter, and some kinds of fruit may be allowed; forbid all broths and meat extracts.

Hot-water baths and hot packs are grateful and efficacious **diaphoretics**. Be careful when using pilocarpine, and remember it makes salivary glands and bronchi "sweat" as well as the skin.

The **urine** may be "smoky" or "porter"-coloured, but is rarely bright red. The sp. gr. is high (from concentration) and the quantity diminished; albumin is present in large amount,

three-quarters or more; urea is absolutely diminished, but the percentage relatively increased; blood is present; microscopically it contains hyaline, epithelial, blood, and granular casts, also blood discs, renal cells, and leucocytes.

CHRONIC NEPHRITIS.

If a patient's urine contain **albumin**, do not hastily conclude it is due to nephritis. **Remember:—**

(a). The albumin may come from **elsewhere than the kidneys**, *e.g.*, the urethra in gonorrhœa, the bladder in cystitis, the pelvis in pyelitis.

(b). **Other conditions** of kidney may cause albuminuria, *e.g.*, calculus, tubercle, growths, parasites, congestion from failing heart, pyrexia, etc.

(c). In chronic nephritis the urine will show **other changes** beside albuminuria, *e.g.*, altered specific gravity, usually low (*i.e.*, below 1012), increased quantity in twenty-four hours, diminished urea, microscopically casts.

(d). In chronic nephritis pathological changes are not limited to the kidneys.

Examine the arteries for general thickening, the left ventricle for hypertrophy, the fundi for retinitis or hæmorrhages.

Therefore *never* diagnose chronic nephritis without complete examination of urine and patient.

There are several **types** of chronic nephritis; two are common:—

PARENCHYMATOUS NEPHRITIS.

(LARGE OR SMALL
WHITE KIDNEY).

Often results from an acute nephritis.

Usually in young subjects.

Much œdema.

Anæmia early and marked.

Urine contains much albumin.

Duration months only.

Recover occasionally.

Death from uræmic vomiting or convulsions.

INTERSTITIAL NEPHRITIS.

(GRANULAR KIDNEY).

Usually primary.

Commonest in men over 40 (lead, alcohol, gout, over-eating, worry and "stress.")

œdema the exception.

Anæmia late.

Urine shows trace of albumin only.

Duration years.

Never recover.

Death from uræmia, cerebral hæmorrhage, heart failure, œdematous laryngitis.

Chronic nephritis may occur in quite young subjects.

Beware of diagnosing "functional" albuminuria without very thorough and repeated examinations. Though it undoubtedly occurs, it is rare, confined to young adults, the albuminuria definitely related to posture, and the patients otherwise free from abnormal symptoms or physical signs.

Lardaceous degeneration of kidneys occurs in the subjects of chronic suppuration, tuberculosis, or syphilis. The urine is, as a rule, increased in quantity, clear, of low specific gravity, and contains $\frac{1}{3}$ to $\frac{1}{2}$ albumin, but these characteristics are not constant.

Always examine the **fundi** in every case of chronic nephritis. **Hæmorrhages** or **optic neuritis** are always of serious prognostic import. The small "silver-sand," or white patches of **albuminuric retinitis**, usually denote a fatal issue within eighteen months.

Beware of intercurrent diseases in the subjects of chronic nephritis.

Hæmorrhages are common evidences of the high arterial tensions very often

associated with chronic nephritis. Repeated epistaxis in adults should always lead to a suspicion of granular kidney. Multiple hæmorrhages into the skin of the extremities are always of grave import; they often herald uræmia.

Hæmaturia is not rare in granular kidney (renal epistaxis).

Be chary of giving **mercury** or **opium** to the subjects of chronic nephritis; their damaged excretory powers render the use of these drugs risky.

Increasing **anæmia** in a patient with granular kidney is always a danger-signal. Beware of impending uræmia.

Dyspnœa is always a serious symptom; it may arise as:—

(a). A manifestation of uræmia.

(b). Result of cardiac failure.

(c). Evidence of commencing œdema of glottis.

(d). From the embarrassment to respiration caused by effusion into pleura (one or both).

Chronic nephritis is an incurable disease; but proper treatment may prolong life to its subjects for years. Its main indication is to ward off undue

stress of every sort from the diseased kidneys and circulatory system. To this end, early regulate the life, diet, and habits of the individual. Forbid alcohol and the strenuous life. Later, keep down the rising arterial tension by aperients, nitrites, and the like; watch the heart, and fend off uræmia. In the last stages, the treatment is that of uræmic manifestations or gross heart failure.

SPECIFIC INFECTIOUS FEVERS.

GENERAL RULES.

Remember the importance of **fresh air**; a window is intended to be open.

Cold-water drinks can only do good in fever.

Control fever, if necessary, by sponging, baths, or packs; so-called antipyretics are a last resource, and may do harm in other ways.

Beware of giving an opinion on a doubtful rash by artificial light; wait for daylight.

In doubtful cases be prompt and cautious; **isolate** and wait.

The **youngest lesions** in a skin rash are usually the most significant.

Always examine your patients all over before giving an opinion on a rash.

Drug rashes are common sources of difficulty in diagnosis.

ENTERIC FEVER.

In England a fever persisting for more than seven days without evident cause, **is usually enteric fever**.

Never make a **diagnosis** of enteric without excluding:—

1. Septicæmia or pyæmia.
2. Acute general tuberculosis.
3. Acute progressive endocarditis.

In a doubtful case examine the **fundus oculi** for tubercle in the choroid.

Remember the points about the **rose-spots**:—

1. Rare before the seventh day.
2. Sometimes absent throughout.
3. Always require careful search.
4. Are frequently found on back or extremities; appear in successive crops.

Widal's blood reaction is present in the great majority of cases; it is rarely present in the first two weeks, and may not be obtained until much later.

Never lose sight of the condition of **Peyer's patches** as the key-note to treatment :—

1st week.—Swollen and inflamed.

2nd week.—Sloughing.

3rd week.—Sloughs separating.

4th week.—Cicatrizing.

Remember possibility of **contagion** after touching a typhoid case. Always wash and antisepticize the hands, and give explicit directions for disinfection of stools, urine, and bed-linen of the patient.

Always give a guarded **prognosis**. One in ten of all cases die. In old people, fat people, and alcoholics the mortality is very high; of those whose pulse-rate exceeds 140, 80 per cent die.

A **relapse** means fresh ulceration of the bowel; its duration is always less than the original attack. Relapsing cases almost always recover.

Slight **hæmorrhage** in the second week means oozing from engorged mucous membrane, is common, and of no serious import; in the third and fourth week it suggests deep ulceration, and may be fatal.

Perforation usually takes place in the last foot of the ileum; immediate abdominal section may save the patient.

Never wake a typhoid patient for anything.

Examine the **stools** yourself, and frequently.

Constipation is common, and can often be overcome by giving more animal broths and less milk; simple enemata every other day, if necessary.

Do not be in a hurry to check **diarrhœa**. Remember size of stools is as important as their number. A larger proportion of milk, or thickening it with arrowroot, may be helpful. If necessary, an enema of starch and opium is the best treatment.

Allow a typhoid as much **cold water** as he likes.

Never order **stimulants** loosely or as a routine treatment in typhoid; many cases require none. Progressive cardiac failure calls for their use in measured quantities at regular intervals.

Always **palpate the belly** gently at each visit to a typhoid case. Remember retention of urine is common, and a

distended bladder, with its attendant discomfort and risks, may remain undetected if this is not done.

Marked **tremor** and sleeplessness indicate a severe attack.

Never allow **solid food** till the temperature has been normal seven days.

SCARLET FEVER.*

* Incubation 1 to 5 days. Quarantine seven clear days from last exposure.

Remember **seven cardinal points** in the diagnosis:—

1. The **onset** is always sudden, with fever and sore throat.

2. **Vomiting** within the first twenty-four hours occurs in 80 per cent of cases.

3. The **skin** is “burning” to the hand.

4. **Second attacks** are very rare.

5. The **rash** practically never appears on the face, palms, or soles; it comes out within forty-eight hours of the first symptom.

6. **Suppressed** scarlet fever (*i.e.*, without rash) exists only in the imagination of the ignorant.

7. In no other disease is a sore throat

accompanied by a clean (much less a raw-looking **tongue**).

If the **temperature** persists beyond seven days, suspect **complications**. Be especially careful to exclude **ear or joint** trouble.

There are no pathognomonic characters about the **desquamation** in scarlet fever.

Do not overfeed during convalescence if you wish to avoid **nephritis**. Keep the patient warm and bowels open. Examine the urine every day.

Isolate the case until:—

1. Desquamation has ceased.
2. No discharges from ear or other abscess are present.

“**Surgical scarlet fever**” is usually a septic cloak.

DIPHTHERIA.*

* Incubation 2 to 5 days. Quarantine till throat is free from Klebs-Löffler bacilli.

Remember **cats** as a possible means of spreading diphtheria, and keep them out of the sick room.

Bear in mind that **defective drains** only predispose to, but cannot cause, diphtheria.

Membrane on the fauces is not necessarily diphtheritic; its grey-white colour, situation on tonsil, bleeding when removed, tendency to spread to soft palate, and coincident cervical adenitis are the suggestive points. Presence of Klebs-Löffler bacillus is the only absolute criterion.

When in doubt, isolate; give antitoxin and wait for bacteriological report.

Never omit to examine the **throat** in feverish children.

Catarrh of the naso-pharynx in children, with ichorous **nasal discharge**, is probably diphtheritic.

Blue-black hæmorrhagic "**ink-spots**" in the skin are usually of fatal import.

Albuminuria is common, but usually transient.

Always **measure the urine** of diphtheria cases; remember that a steadily-diminishing quantity suggests the onset of fatal anuria.

Remember **toxic myocarditis**. Watch the heart carefully during convalescence; you cannot be too cautious in guarding against any possible cause of sudden heart-failure.

Do not postpone **tracheotomy** till the child is almost asphyxiated. Increasing dyspnœa in spite of antitoxin usually calls for surgical interference.

Antitoxin is your sheet-anchor in treatment; give it in full doses, and repeat in twelve hours if no improvement takes place.

Local treatment to the throat is of secondary importance.

Always make an attempt to remove the **tracheotomy tube** within forty-eight hours of operation.

Antitoxin rashes are commonly "measly" or urticarial in type; they may be accompanied with slight fever, and are often delayed till seven to sixteen days after injection.

Look out for **post-diphtheritic paralysis**; it is a peripheral neuritis, and usually first affects soft palate (therefore nasal voice or regurgitation of liquids through nose), eye-muscles (therefore squint), or legs (therefore difficulty in walking, absent knee-jerks, etc.). Treat by rest in bed, overfeeding, strychnine; later, massage.

Remember in laryngeal diphtheria

the grave risk of extension to lower air-passages. **Broncho-pneumonia** is often fatal.

CHICKEN-POX.*

* Incubation 13 to 16 days. Quarantine till the skin is quite healthy.

Never forget this table:—

	VARICELLA.	VARIOLA.
<i>Initial Symptoms.</i>	Usually none.	Sudden fever, vomiting and backache.
<i>Appearance of Rash.</i>	First day.	Third day.
<i>Distribution of Rash.</i>	Mainly on trunk and proximal extremities.	First on forehead and backs of wrists.
<i>Characters of Rash.</i>	Always discrete.	Often confluent.
	Comes out in crops.	All at once.
	Vesicular in six hours.	Vesicles not till twenty-four hours.
	Vesicles oval.	Vesicles round.
	Vesicles unilocular.	Vesicles multilocular.
	Lesions seen in all stages at once.	Lesions all at same stage.
<i>Fever.</i>	Nil.	High.

Remember the importance and difficulty of distinguishing chicken-pox from **"modified" small-pox**; always bear this in mind in the presence of an epidemic.

Do not forget that occasionally the **"pocks"** in chicken-pox become **gangrenous** in unhealthy or tubercular children.

SMALL-POX.*

* Incubation 12 days. Quarantine till skin is quite clear.

Severe **pain in the back** is not necessarily lumbago. Sudden back-ache, vomiting, and fever should always lead to suspicion of small-pox.

Do not forget the frequency of **prodromal** rashes in small-pox; these are usually erythematous, and often limited to the **"bathing-drawers"** area.

Any patient exposed to infection of small-pox should be immediately **vaccinated** unless this has been quite recently performed.

Bear in mind that no treatment can prevent **"pitting."**

The great element in **prognosis** in

small-pox is the number of good vaccination-marks present.

There are three factors in successful vaccination:—

1. Strict surgical cleanliness.
2. Fresh glycerinated calf lymph.
3. An after aseptic dressing.

MUMPS.*

* Incubation 14 to 25 days. Quarantine three weeks from commencement of swelling.

Although both **parotids** are always affected in mumps, it is common for one to become affected before the other.

Suppuration of the parotids is unknown in mumps.

Orchitis is common during convalescence in male adults, and may lead to atrophy of the testicle.

Do not forget that **deafness** and facial paralysis may temporarily occur.

MEASLES.†

† Incubation 4 to 14 days. Quarantine 3 weeks.

The characteristic **rash** does not appear till the fourth day of initial symptoms. Do not be deceived by the

common fall of temperature on the day before it comes out.

Koplik's spots may be seen on the buccal mucous membrane before the skin rash appears.

Do not forget that, unlike scarlet fever, **second attacks** of measles are very common.

Catarrhal laryngitis is not rare; it may come on at any time during the first week, and cause severe dyspnœa. Tracheotomy is occasionally necessary.

Suspect **bronchitis** or bronchopneumonia if the temperature remains high after the sixth day.

Never purge a case of measles severely. Remember the liability in measles to gastro-enteritis.

Bear in mind that the **mortality** of measles in children is second only to whooping-cough, and that the danger is mainly its liability to catarrh of lungs or ears.

Always keep the room darkened in measles, and look out for conjunctivitis.

During convalescence beware of **lung trouble**; tuberculosis is a common sequela.

WHOOPIING-COUGH.*

* Incubation 4 to 14 days. Probably infectious as long as cough lasts.

Never regard whooping-cough in children as other than a **serious** disease.

The **duration** of an attack varies from six weeks to three months.

Suspect whooping-cough if in a child's cough you note the following characteristics:—

1. Paroxysmal nature.
2. Coughing fits cause marked congestion of face.
3. Cough ends in vomiting.
4. Cough markedly worse at night.
5. Cough getting worse without adequate physical signs in lungs or throat.

Do not forget the frequent **vomiting** may seriously interfere with the nutrition of a child. In this disease a child will often feed readily directly after a vomiting attack.

Remember the **dangers** of whooping-cough:—

1. Broncho-pneumonia.
2. Repeated convulsions.

3. Tuberculosis.

4. Cerebral hæmorrhage.

Whooping-cough may often be the starting point of **emphysema**.

INFLUENZA.

Never be satisfied with a diagnosis of influenza until you have excluded all other likely causes of the pyrexia.

Influenza is a great **simulator** of other diseases; its more common "imitations" include:—

1. A feverish cold.

2. Typhoid fever.

3. Pneumonia.

4. Meningitis.

In all manifestations of influenza there are **seven cardinal points**:—

1. Sudden onset.

2. Severe frontal headache.

3. "Pains all over," especially back and limbs.

4. Pulse at onset slow in proportion to fever.

5. Rise of temperature.

6. Nervous prostration out of proportion to symptoms.

7. Liability to broncho-pneumonia.

Hesitate to diagnose influenza in the absence of a majority of these.

Never forget the great **danger** in influenza is lung complication, and act accordingly.

In convalescence from influenza the **nervous system** is often reduced to physiological bankruptcy. Food, fresh air, rest, strychnine, and change of scene are your best tonics.

ACUTE TUBERCULOSIS.

Acute miliary tuberculosis is almost always an **auto-infection**. In suspected cases search carefully for evidence of old tubercle in lungs, glands, bones, and joints.

Do not forget acute miliary tuberculosis is a general infection of the **blood stream** with tubercle bacilli, and is **always fatal**.

The only certain **sign** is the presence of tubercle in the choroid.

Remember the **clinical picture** varies in different cases.

Never forget that there may often be no abnormal signs discoverable in life, in lungs studded throughout with miliary tubercle.

Never diagnose acute tuberculosis without excluding the possibility of enteric fever.

Remember the **seven pegs** on which your diagnosis must hang:—

1. Presence of an old tubercular focus.
 2. Gradual onset.
 3. Progressive asthenia.
 4. Constant pyrexia of irregular type.
 5. Respiration-rate quicker than the physical signs or temperature account for.
 6. Rapid pulse.
 7. Marked disproportion between constitutional disturbance and abnormal physical signs.
-

DISEASES OF HEART AND VESSELS.

EXAMINATION OF HEART.

Be methodical. First inspect and palpate; auscultate last of all. Properly-trained eyes and fingers will often tell you more than the most complicated stethoscope.

Always palpate the whole precordium; thrills and abnormal pulsations are not limited to the apex.

Remember the position and "feel" of the **apex-beat** usually gives more important evidence of the size of the heart than any number of mappings-out of cardiac dullnesses.

In **auscultation** first ask yourself:—

1. "Can I hear the first sound? Is it normal?"

2. "Can I hear the second sound? Is it normal?"

3. Last, and not till last, ask yourself: "Do I hear any added sound?"

Repeat these enquiries at each area. Remember the cardiac sounds are the index to the way the heart is doing its work, irrespective of the presence of murmurs.

"**Murmurs**" are only evidence of one kind of heart-mischief, and that often not the most serious. Many a heart has killed its owner "without a murmur."

Do not think that the **loudness** of a murmur is the index of its gravity; a loud murmur usually implies a forcefully-acting heart.

If a murmur be present remember the questions to be answered before your diagnosis is complete:—

1. Is it **exocardial** or **endocardial** in origin?

2. Is it **organic** or **hæmic**?

3. What **valve** is affected?

4. Is the abnormality producing **obstruction** or **regurgitation**?

5. Is the heart "**compensated**" or not?

Always examine the **pleural cavities** carefully in cases of cardiac dyspnœa; fluid is often present, and may need evacuation.

Never omit to examine **both pulses** in all cases of heart trouble.

A **diastolic murmur** is always of organic origin.

Hæmic murmurs are common in all forms of anæmia. Hesitate to diagnose a murmur as hæmic unless it is:—

(a). Loudest over pulmonary area.

(b). Blowing in character and systolic in time.

(c). Loudest when patient is horizontal

(d). Conducted equally in all directions from pulmonary area.

(e). Accompanied with a venous hum in vessels of neck.

"**Compensation**" depends upon

adequate hypertrophy of cardiac muscle. A compensated heart gives rise to no symptoms, and the equilibrium of the circulation is perfectly maintained. But the compensated heart is like a man living right up to his income—any unusual call may bring disaster.

The **causes of failure of compensation** include any variety of “stress.” A sudden, violent muscular effort, a 100-yards sprint, loss of sleep, insufficient food, any acute illness, and mental anxiety are familiar examples. The failure may be sudden or gradual.

The **signs of failure of compensation** include:—

(a). *Cardiac symptoms*: Orthopnœa, palpitation, precordial distress, breathlessness on slight exertion.

(b). *Cardiac signs, i.e.*, evidence of dilatation in excess of hypertrophy.

(c). *Extra-cardiac signs*: Irregular pulse, enlarged and tender liver from back-pressure, congested bases of lungs, albuminous urine, œdema of extremities, passive effusions into serous cavities, etc.

These are all evidences of cardiac failure.

THE PULSE.

Always examine both radial pulses, at first together, and then separately; in this way an aortic aneurism may be detected which might otherwise be missed.

The **irregularity** of a pulse is of more import than its occasional intermittence; this is especially true in old people.

Count a pulse for at least thirty seconds, better for a full minute.

Beware of patients, otherwise apparently healthy, whose pulse-rate is habitually over 100 or under 50.

If you detect any difference between the two radial pulses, test the two brachials similarly before concluding such difference due to a central cause. Remember an **abnormal radial artery** is not rare.

Compare the pulse-rate when lying down and standing; the difference should not amount to more than 15 per minute.

Always note condition of **arterial wall** when feeling a pulse. Remember "a man is as old as his arteries."

In a nervous patient it is often wise to count his pulse-rate without his knowledge, for instance, by auscultating his chest.

MITRAL DISEASE.

Remember in mitral stenosis a long murmur and well-marked thrill are good signs; as compensation fails these tend to disappear.

Learn to recognize the short, sharp, **slapping first sound** of mitral stenosis.

Mitral stenosis without some **regurgitation** is very rare.

In mitral regurgitation always note the amount and character of the **first sound** at the apex; this is an index to the condition of ventricular muscle, and is an important element in prognosis.

Do not forget that a fair amount of mitral regurgitation is not incompatible with a long, useful life under wise precautions.

Remember a well-marked systolic murmur at the apex does not necessarily mean a diseased mitral valve; it may be due to a **dilated mitral ring** with a perfectly healthy valve.

Emboli are more common in mitral stenosis than in any other form of endocarditis.

Gross **œdema** in mitral stenosis is rare; when it occurs it is a most serious prognostic sign.

Hæmoptysis as a result of pulmonary congestion is comparatively frequent and sometimes profuse.

Mitral disease may arise from a **variety of causes**, of which rheumatism is the commonest. In rheumatic endocarditis the mitral is practically always affected, either with or without the implication of another valve.

AORTIC REGURGITATION.

Remember aortic regurgitation is the **most serious** valvular lesion of all.

The **diastolic murmur** is characteristic; remember it is never very loud, and may often be heard best to the left of the sternum. It is the most important of all murmurs, and is the one most often "missed."

Patients **under twelve years** of age with marked aortic regurgitation do badly.

A persistently **rapid pulse** is always a serious omen.

A systolic murmur at the aortic area is but rarely due to aortic **stenosis**. Hæmic states, roughening of aortic cusps or aortic intima, are more common explanations. Remember aortic stenosis without some regurgitation is very rare, but aortic regurgitation without stenosis is the rule.

Never forget that these patients are peculiarly liable to **sudden death**.

Gross failure of compensation in aortic regurgitation, evidenced by œdematous extremities, dilating ventricles, enlarged liver, etc., calls for *digitalis*.

The **length** of the diastolic murmur is a direct index to the **amount of regurgitation**. Absence of second sound at aortic area and in carotids means very serious leakage.

Remember an apical pre-systolic murmur in aortic regurgitation does not necessarily mean coincident mitral stenosis; it may be an "**Austin Flint**."

PERICARDITIS.

Pericarditis is very **rarely primary**; in *young* people it is usually secondary

to scarlet fever, chorea, rheumatism, pyæmia, or pneumonia; in *elderly* patients, to chronic Bright's disease.

Never forget that pericarditis always means **myocarditis**, hence its serious and sometimes fatal import.

In **children** acute pericarditis may be present without any complaint of pain.

Pericarditis in the subject of chronic **Bright's Disease** is often fatal, and always a very bad prognostic sign.

Remember, unlike pleurisy, the "**rub**" may persist (especially at the base), even with considerable effusion.

Bear in mind the **seven points** about a pericardial rub:—

1. Very superficial.
2. Intensified by pressure of stethoscope.
3. "To-and-fro" character.
4. "Rubbing" quality.
5. Not affected by respiration.
6. Area limited to precordium.
7. Not conducted.

Be careful not to mistake the **double murmur** of aortic incompetence for a pericardial rub.

An area of superficial cardiac dullness

reaching above third rib, usually means pericardial effusion or aneurism.

Remember **endocarditis** very often accompanies pericarditis, though its presence may be masked by the more obvious signs of the latter.

There are no physical signs or symptoms pathognomonic of **adherent pericardium**.

Pericardial **effusion** of rheumatic origin very rarely, if ever, requires aspiration; persevere with anti-rheumatic treatment.

In all cases of progressive increase of cardiac dullness in pericarditis the **great difficulty** is to distinguish between a dilating heart and pericardial effusion.

Painful swallowing is common in pericardial effusion.

With much effusion, look out for **pressure-signs** at the left base.

In **treatment**, remember a rheumatic case should be treated with salicylates, like rheumatic inflammations of other parts. Absolute rest is imperative. Blisters or leeches are often useful, and **opium** is invaluable to relieve pain and quiet the circulation.

CONGENITAL HEART DISEASE.

Pulmonary stenosis is the commonest variety, and is the only one which can with certainty be diagnosed during life.

Remember in many cases the lesion is multiple; two or more abnormalities are often present.

In many cases there are **no symptoms** for the first few years.

Look for **cyanosis** and **clubbing** of fingers and toes.

Œdema is rare in congenital heart trouble.

Never forget the tendency of these cases to lung troubles, and especially to **pulmonary tuberculosis**.

ARTERIES.

Remember "A man is as old as his arteries." The "feel" of a man's radial artery is a better index of his physiological age than a knowledge of the date of his birth.

Examine superficial temporals, brachials, and radials for a knowledge of state of arteries.

The **thickening** of arteries in chronic

renal disease is general. Hence the condition of the radial is in nephritis an index of the state of the cerebral vessels.

Syphilis often affects vessels locally, so that with a soft radial artery there may be advanced syphilitic endarteritis of the cerebral vessels.

ANEURISM.

The only pathognomonic sign of an aneurism is **expansile pulsation**.

Remember that a tumour situated over an artery receives pulsation from it, but such pulsation is **not** expansile.

Examine pulsating tumours of the abdomen with the patient resting on knees and elbows, since in this position all independent structures fall away from the aorta and the pulsation ceases to be transmitted.

Intra-thoracic new growths and aneurisms are often difficult to distinguish. Such a tumour lasting for more than two years is usually an aneurism.

Remember that aneurisms of the ascending aorta give rise to the most marked physical **signs**; of the transverse

aorta to the most marked pressure symptoms.

A "murmur" is not necessary for the diagnosis of aortic aneurism; the altered "thudding" second sound at the base is often characteristic.

Tracheal "tugging" is one of the most valuable signs of an intra-thoracic aneurism.

The three great causes of aortic aneurism: over-strain, alcohol, and syphilis, often go hand-in-hand.

Beware of latent aneurisms.

Learn to recognize the peculiar "brassy" or "cow" cough of pressure.

Hæmoptysis in the subject of an intra-thoracic aneurism is always a danger-signal. It usually heralds rupture into trachea, bronchi, or lung.

TREATMENT OF CHRONIC VALVULAR HEART DISEASE.

A compensated heart requires no active treatment.

Never treat a heart-murmur. Dilatation, as the evidence of failing heart muscle, is (*qua* physical signs) the indication for treatment.

Always be cheerful, but never boisterous with heart cases.

Remember any and every valvular defect tends to cause arterial anæmia and venous congestion.

Rest, in the fullest sense, is the most important factor in treatment. A heart case which does not sleep will do badly, even with the newest of heart tonics. Do not hesitate to give morphia if pain be the cause of sleeplessness.

Feed carefully; a failing heart needs food. "Little and often" is the wiser course. Be careful not to over-fill the stomach, and so add to a labouring heart's difficulties.

Do not hesitate to bleed if cyanosis and venous engorgement are marked; timely venesection has saved many lives.

A dilated heart, whatever the valve affected, is the indication for **digitalis**; give it in full doses and watch its effects. Never play with digitalis.

The **quantity of urine** passed is the best indication of progress. If digitalis is doing good the amount will begin to increase within 48 hours.

Do not forget that digitalis tends to

raise **blood-tension**. In some cases where this is already high digitalis does harm; if so, substitute strophanthus.

Remember **coffee**, as a pleasant means of giving a useful cardiac stimulant.

Alcohol is a godsend to a few heart cases, useful in some, but positively harmful to many. Never give it in routine fashion, but always in measured quantities, and watch its effects.

BLOOD DISEASES.

ANÆMIA.

Remember that anæmia is **usually secondary**, and successful treatment depends on finding out its cause. Secondary anæmias are common at all ages. In **infants** think of rickets, improper feeding, congenital syphilis; in **children** lack of sleep, unhealthy surroundings, rheumatism. In **young adults** tubercle of lungs, gastric ulcer, valvular heart trouble, acquired syphilis. In **adults** lead poisoning, Bright's disease, carcinoma somewhere, or the results of repeated loss of blood.

Pallor does not necessarily mean

anæmia. Examine gums, mucous membrane of mouth, conjunctivæ, nail-beds, and ear-lobules, as your criteria.

A **blood-count** is the only certain test of anæmia.

Remember the **characteristic blood-changes in primary anæmias**:—

DISEASE.	CHARACTERISTIC BLOOD-CHANGE.
Chlorosis.	Deficiency in hæmoglobin.
Pernicious anæmia.	{ Diminished number and altered size and shape of red corpuscles.
Spleno-medullary leukæmia.	{ Increased number of leucocytes, mainly eosinophiles, with presence of myelocytes.
Lymphatic leukæmia.	{ Increased number of leucocytes, mainly lymphocytes.
Lymphadenoma.	Nil characteristic.

In anæmia from any cause **examine the teeth** and see that these are in proper order.

In giving **iron** begin with a mild preparation, such for instance as the

ammonio-citrate. Give it in increasing doses immediately after meals. Correct its constipating effect with an aperient; continue it for some weeks after the relief of anæmic symptoms.

Arsenic is invaluable in some of the anæmias; begin with a small dose (*e.g.*, 3 minims liquor arsenicalis) and increase by 1 minim every other day up to 20-minim doses. **Always** give it immediately after a meal, and diluted with a large quantity of water. Watch for the signs of chronic arsenical poisoning, epigastric pain, vomiting, conjunctivitis, a brownish pigmentation of skin, signs of peripheral neuritis.

ENLARGED GLANDS.

Always look first for some **source of irritation** in the area drained by the affected glands.

Examine the enlarged glands carefully; **learn to recognize** the diffuse tenderness of inflamed glands, the stony hardness of malignant secondary deposits, the patchy softness of tubercular adenitis, the painless "bullet" feel of the glands of secondary syphilis.

In doubtful cases always look for similar enlargement of glands **elsewhere** ; the patient may have overlooked them.

Take a **blood-count** in all cases of uncertainty, and ascertain if the **spleen** be enlarged.

Enlarged glands above the **left clavicle** may be due to intra-abdominal disease.

In **tubercular adenitis** of cervical glands, remember the lungs are often already affected.

Never diagnose **lymphadenoma** till you have negatived syphilis and tubercle.

Remember in general diseases of lymphatic glands (leukæmia, lymphadenoma, etc.) the **deep glands** of thorax and abdomen may be equally or more affected than the superficial groups.

LEUCOCYTOSIS.

Over 10,000 white cells per cmm. of blood constitute a leucocytosis.

Remember leucocytosis may be found in health or disease.

Physiological leucocytosis occurs in the newly-born, soon after a meal, after

cold baths, massage, or violent exercise, and during the late months of pregnancy.

Pathological leucocytosis is common after severe hæmorrhage, in septic conditions, inflammatory states, malignant disease, and in leukæmia.

A marked leucocytosis is often a valuable indication of **suppuration**.

Leucocytosis is **rare** in uncomplicated typhoid and in influenza; it is **the rule** in lobar pneumonia.

PURPURA.

Remember purpura is **only a symptom**, the cause of which is necessary for a diagnosis and treatment.

Always regard **cutaneous hæmorrhages** as serious; they often indicate the "poisoning" of the blood-stream with some toxic substance. This toxic agent may be *from without*, *e.g.*, certain drugs, the poison of specific fevers, rheumatism; or arise *within the body* as the result of chronic disorders, *e.g.*, blood diseases, chronic Bright's disease, etc.

Cutaneous hæmorrhages appearing in the course of one of the acute **specific**

fevers are of very grave import; they indicate a severe grade of the disease.

Beware of hæmophilia.

Bear in mind in all cases the risk of hæmorrhages elsewhere: *e.g.*, cerebral, meningeal, or from mucous membranes.

The **treatment** is that of the cause in each case: oil of turpentine (10 to 30 minims every 4 hrs.) is sometimes useful.

CHLOROSIS.

Chlorosis is **commonest** in, but **not confined** to, young women. Do not take it for granted that every anæmic girl is suffering from chlorosis; be careful to exclude anæmia from secondary causes.

Remember chlorotics are **usually plump**. Beware of diagnosing it in wasted subjects; think of tubercle and gastric ulcer.

The **symptoms** of chlorosis are those of the anæmia. They generally fall under four groups.

1. **General**: lassitude, headache, sleepiness.

2. **Circulatory**: faintings, giddiness, palpitation, shortness of breath, œdema of legs.

3. **Gastro-intestinal:** pain after food, vomiting, constipation.

4. **Menstrual:** usually in direction of amenorrhœa.

The characteristic **blood lesion** is its deficiency in hæmoglobin; this will usually distinguish it from other forms of anæmia.

In treatment remember the importance of **rest**; such patients cannot have too much fresh air and sunshine, but they can easily take more exercise than is good for them. Very marked cases are at first best treated in bed.

Always regulate **the diet**; give iron-containing foods—milk, eggs, red meats—at regular intervals; the dyspeptic symptoms are best relieved by alkalies.

Iron is a specific for chlorosis; remember how to give it (see anæmia).

PERNICIOUS ANÆMIA.

Remember Addison's original definition, a "general anæmia occurring without any discoverable cause whatever, in which there had been no previous loss of blood, no exhausting diarrhœa, no chlorosis, no purpura, no

renal, miasmatic, glandular, strumous, or malignant disease." In spite of much investigation, and more theory, this still holds good.

To distinguish from chlorosis notice the following :—

	CHLOROSIS.	PERNICIOUS ANÆMIA.
<i>Age</i>	Commonest about puberty	Commonest in middle life.
<i>Sex</i>	Females.	Either sex.
<i>Colour</i>	Greenish.	"Boxy" yellow.
<i>The blood</i>	Deficient hæmoglobin.	Deficient red corpuscles.
<i>Pyrexia</i>	Rare.	Irregular pyrexia common.
<i>Hæmorrhages</i>	Rare.	Common.
<i>Result of iron</i>	Cures.	No improvement.
<i>Prognosis</i>	Excellent.	Usually fatal.

In doubtful cases think of the possibility of **intestinal worms**; both ankylostoma duodenale and tape-worm may cause marked anæmia. The commonest

real difficulty is to distinguish between this disease and the secondary anæmia of carcinoma; the poikilocytosis and high colour-index of the blood in true pernicious anæmia are the most reliable guides.

Always look carefully to the teeth, and remedy septic defects in the mouth.

The symptoms are always vague—usually those of anæmia and “weakness”; none are characteristic.

Hæmorrhages are common and generally slight. Repeated bleedings and hæmorrhages into the fundi suggest an advanced stage of the disease, and are of bad omen.

Cases seldom, if ever, recover completely; but remissions are the rule.

Arsenic is the only drug of value in pernicious anæmia; give it promptly, carefully, and boldly (see p. 54); estimate progress by blood-counts. Rest in bed is an essential at the commencement of a course of arsenical treatment.

LEUKÆMIA.

Two main types are well established, though variations may occur.

1. **Spleno-medullary leukæmia** is characterized by progressive enlargement of spleen, extreme leucocytosis, but little or no enlargement of lymphatic glands. The leucocytosis is due to an increase of *eosinophiles*, with the presence in large numbers of *myelocytes* (not found in normal blood).

2. **Lymphatic leukæmia.** In this variety the lymphatic glands are enlarged, leucocytosis is marked, but the spleen shows little increase in size. The leucocytosis is mainly due to an increase of the *lymphocytes*.

Remember there are no **characteristic symptoms** in either form, and the diagnosis can only be made by a **blood examination**.

There is a marked **tendency** to **hæmorrhage**. The bleeding may be from anywhere; epistaxis, hæmatemesis, purpura, cerebral hæmorrhage, have all been the cause of death in leukæmia.

Recovery is the exception, but the **duration** varies from a few weeks to three or more years. **Arsenic** in large doses often causes extraordinary improvement for a time.

DISEASES OF LUNGS.

EXAMINATION OF CHEST.

Never omit **inspection** ; of the various means of examination it is perhaps the most useful.

Do not be in a hurry to perform on your **stethoscope** ; use it in its proper place—last.

Always examine thoroughly both **axillary** regions.

Remember that bronchial breathing in the interscapular area behind and below the sterno-clavicular joints in front, is **normal**.

Vocal resonance and tactile vocal fremitus are almost always more distinct over the right side in normal chests.

Œdema localized to the chest wall suggests pus or new growth.

Always try the effect of repeated coughing on any adventitious sounds you find in a patient's chest. If they disappear on **coughing** they may be disregarded.

Always test for the "**coin-sound**" over anomalous dullness ; pneumothorax is not always labelled for you.

If after careful examination there still exists doubt as to the significance of a dull area, **explore** aseptically with a syringe which has a good-sized needle.

Be systematic. Remember the **importance of comparison**. Compare the physical signs at each spot with those of the corresponding area of the opposite lung.

In **auscultation** first ask yourself, Can I hear the breath-sounds? Are they normal in character, and is the relation of inspiration to expiration preserved? Take no heed of any adventitious sounds until you have made this observation. During auscultation make sure that your patient breathes with his **mouth closed**.

“**Cog-wheel**” breathing is not necessarily abnormal.

COUGH.

Cough is always a **symptom**, never a disease.

Every cough has its **cause**; never treat the cough before ascertaining the cause.

Remember cough is often due to

causes **outside the lungs**: a long uvula, pharyngitis, wax in the ears, laryngeal disease, pressure of thoracic aneurism, are notable examples.

Do not forget that persisting cough in a child without obvious cause may be due to **whooping-cough**.

Learn to recognize the "brassy" cough (or "cow" cough) of **pressure** by aneurism or tumour.

A "**stomach cough**" usually means one whose cause has not been detected or even looked for. A stomach rarely begets a cough.

Before treating any cough ask yourself: Is it **useful**, or **useless**? A useful cough should be encouraged (expectorants); a useless cough checked (opiates).

HÆMOPTYSIS.

Blood-spitting does not **necessarily** mean "consumption"; in a considerable number of cases it does not even come from the lungs; in doubtful cases examine nose, larynx, gums, and mouth for its source,

Whenever possible **examine** the "sputum" yourself. Small masses of

blood-clot are more suggestive of lung trouble than mere blood-streaks.

A little blood on the pillow in the morning is common in children with **adenoids** or nocturnal **epilepsy**.

Remember repeated hæmoptysis is a frequent symptom in **mitral stenosis**.

Do not expect to find **tubercle bacilli** in sputum containing much blood; wait till the bleeding has ceased.

Never percuss the chest in a patient who has had recent hæmoptysis. In severe cases **rest** is the key-note of treatment. Forbid movement and talking, and banish anxious relatives from the room. Give an aperient, and a full dose of morphia hypodermically.

EPISTAXIS.

Nose-bleeding may be “sometimes a **remedy**, sometimes a **warning**, and sometimes a **disease** in itself” (Watson).

Epistaxis sufficiently severe to require a doctor demands careful enquiry as to its **cause**.

Make certain whether the bleeding comes from **one or both** nostrils.

Remember many cases arise from **constitutional causes**: the increased arterial tension of chronic Bright's disease, chronic endocarditis, such blood diseases as pernicious anæmia and leukæmia, are all notable examples.

Most cases of epistaxis will cease if the arms be elevated, cold applied to bridge of nose, while the feet and legs are placed in water as hot as can be borne.

Never leave a plug in longer than 24 hours.

ACUTE BRONCHITIS.

Never forget that bronchitis is often only a symptom. It may mean:—

1. Certain **specific fevers** (typhoid, measles, influenza).

2. **Pulmonary tuberculosis** (*i.e.*, a tuberculous bronchitis).

3. **Chronic endocarditis** (bronchial mucous membrane congested from "back pressure.")

4. **Chronic Bright's disease** (bronchial mucous membrane œdematous).

Unilateral bronchitis is usually tubercular.

In adults a **temperature** of more than 101° is rarely due to bronchitis alone; suspect pneumonia or other complications.

The number or loudness of the **rhonchi** is no criterion of the extent of the bronchitis; be guided by the symptoms (especially respiration-rate, dyspnoea, cyanosis, etc.)

Remember the loudest rhonchi are formed in the largest bronchi. It is when the smallest **bronchioles** are affected, giving rise to quiet "rustling" rhonchi, that bronchitis *per se* becomes most serious.

Capillary bronchitis means broncho-pneumonia.

The **sputum**, as the index to the state of the bronchial mucous membrane, is the key-note to treatment. It is useless to give stimulating expectorants while the sputum remains scanty; give alkalies, ipecacuanha, or (with care) antimony.

Acute bronchitis in **old people** is always serious.

Never give **opium** in acute bronchitis without a definite reason.

BRONCHO-PNEUMONIA.

Bronchitis is a necessary part of broncho-pneumonia.

Never regard broncho-pneumonia as other than **serious**.

Remember the **four great groups** of broncho-pneumonia:—

1. **Simple**, induced by cold—usually due to pneumococcus.

2. Broncho-pneumonia due to poison of **specific fevers** (measles, diphtheria, influenza, etc.)

3. “**Aspiration**” or “**septic**” broncho-pneumonia (operations or wounds of air-passages, cancer of air-passages, pyæmia, inhalation of septic particles in coma).

4. **Tuberculous** broncho-pneumonia. (N.B.—In each the process is the same, the poison differs).

Always ask yourself which group a case comes under.

Broncho-pneumonia is always **bilateral**.

The **physical signs** are often indefinite. High irregular pyrexia in a child with quick breathing usually means broncho-pneumonia; you may only find signs of bronchitis, or a few crepitations, or

patchy dullness and tubular breathing. Broncho-pneumonia persisting and progressing for more than four weeks in a child is probably **tubercular**.

Remember in all cases the great risk of **collapse of lung** from blocked bronchi; a timely enema (pulv. ipecac. 10 grs. in mucilage) and the repeated use of the "hot bath with cold splash" are the best preventives.

A **steam-kettle** is not a specific.

Broncho-pneumonia usually kills through gradual heart-failure; therefore **watch the heart** and use strychnine injections, stimulants, leeches, etc., if the right heart shows signs of failure.

LOBAR PNEUMONIA.

The hot, dry, pungent **skin** is one of the most characteristic signs of lobar pneumonia. Hyperpyrexia and scarlet fever are the only other conditions in which it obtains.

Always examine the chest in cases of **delirium tremens**; such symptoms may be the first indication of pneumonia in a drunkard.

Do not expect to find **signs of solid**

lung at the onset of every case; these are often delayed. Quiet breath sounds over the affected area is a common (and sometimes the only) early abnormal physical sign.

Remember that 1 in 5 of all cases of lobar pneumonia die.

Delirium is often early and marked in **apical pneumonia**; these cases are sometimes mistaken for meningitis or sunstroke.

Do not forget to watch for **pericarditis**; this is a common cause of death, especially in left-sided cases.

A little bright blood does not constitute "**rusty**" sputum.

A sudden drop in temperature is not necessarily a **true** "crisis." Temperature, pulse-rate, and respiration-rate should all fall together. Remember so-called "**false**" **crises** are common.

Beware of lobar pneumonia with a low temperature.

Do not **overfeed** pneumonias; especially avoid food likely to cause distension of stomach and intestines. Lobar pneumonia is a short self-limiting disease, and the diaphragm needs free play.

Avoid **poultices** in children and stout patients.

Never give **opium** if you can help it; it diminishes all secretion and dulls the respiratory centre.

The **great danger** in pneumonia is cardiac failure. Do not stimulate from the commencement of the illness, but watch for signs of failing heart—irregular, quickening pulse, very rapid respiration, œdema of other lung, and cyanosis. In such cases give alcohol, strychnine injections, etc.

An irregular temperature occurring after a true crisis generally indicates **pus** in the pleura.

A large **pleuritic effusion** in lobar pneumonia nearly always suppurates.

PLEURITIC EFFUSION.

Displacement of viscera, notably of apex beat, is the most important sign of pleural effusion.

Remember the physical signs of fluid in **children** are rarely typical. Tubular breathing over a considerable effusion is common. When in doubt **explore** aseptically; use an aspirating syringe.

Mistakes are often made when a hypodermic syringe with a fine needle is used.

Pleural effusions following lobar pneumonia, scarlet fever, and typhoid, usually **suppurate**.

A **sterile** effusion suggests a tuberculous origin.

A **blood-stained** effusion is common in malignant disease, tubercle, chronic Bright's disease, and cirrhosis of liver.

Always aspirate:—

1. If the collection of fluid causes marked discomfort.

2. If one side of chest is full.

3. If after three weeks the fluid shows no sign of diminishing.

Never aspirate a tuberculous effusion if you can avoid it.

Never omit to **test** your aspirator completely just before inserting the needle.

Always aspirate slowly with the patient recumbent.

Never empty the pleura completely.

Do not forget the importance, after aspiration, of breathing exercises and gymnastic movements to help the re-expansion of the lung.

The presence of pleuric friction-

sounds is certain proof that there is no large collection of fluid.

The amount of **dyspnœa** is not *per se* a reliable guide to the size of the effusion.

Pleuritic effusion without obvious cause is nearly always **tuberculous** in character.

EMPYEMA.

Pus in the pleural cavity is an **abscess in a dangerous place**.

The only proper **treatment** consists in immediate and thorough drainage. In most cases the removal of a portion of a rib or ribs is necessary.

A patient with an empyema is **never too ill** to have the pus evacuated.

Never forget that **irrigation** in empyema is rarely necessary, and is often fraught with serious danger.

Get your patient up as soon as possible after operation. Adequate drainage, feeding, sunshine, and respiratory gymnastics sum up the after-treatment.

TUBERCULOSIS OF LUNGS.

Remember that no **age** is exempt from pulmonary tubercle, though it is commonest in young people.

Tubercle bacilli in the sputum is the one certain diagnostic sign. Stain carefully, and examine your stained specimens repeatedly and thoroughly. Tubercle bacilli may often be found before the physical signs are characteristic.

Pyrexia is always an indication for bed.

Night-sweats are not peculiar to phthisis.

A **unilateral apical bronchitis** is nearly always of tuberculous origin.

Judge of the activity of the tubercular process by **symptoms** (temperature, pulse-rate, wasting), rather than by physical signs.

Increasing weight is a good sign, but the sudden laying-on of subcutaneous fat need not necessarily prove the salvation of a tuberculous patient.

Never continue any drug treatment which is upsetting digestion.

Remember pulmonary tuberculosis is a **contagious disease** mainly conveyed by dried sputum. In every case the sputum of such patients must be destroyed, and handkerchiefs properly disinfected.

A phthisical mother must not be allowed to suckle her child.

The **bedroom** of a phthisical patient should not be shared with anyone; it must be thoroughly cleaned and disinfected before being used by any subsequent occupier. Remember the dirty patient dies because of **re-infection**.

Bear in mind that in the great majority of cases, when the physical signs of the disease at the apex are sufficiently definite to allow of diagnosis, the lower lobe is already affected.

There is no physical sign **pathognomonic** of lung tubercle. Although the apex is, as a rule, first affected, basal tubercle does also occur. In physical examination pay most attention to the posterior apex.

The physical signs of **cavities** are notoriously uncertain; remember how these differ according to condition of surrounding lung, etc. A lung cavity of any size never heals completely.

In **active phthisis** there is usually pyrexia, but do not expect to find the temperature constantly raised. Between 3 and 7 o'clock in the afternoon is a

common time to find the irregular pyrexia of early phthisis.

In adult males examine the **testicles**. Remember that tubercular epididymitis is common and may be the source of the infection.

DISEASES OF THE NERVOUS SYSTEM.

EPILEPSY.

All **recurring "fits"** are not due to idiopathic epilepsy; in **children** they may be simple reflex convulsions curable by removal of the cause; in **young adults** think of hysteria; in adults be careful to exclude cerebral syphilis or tumours, chronic alcoholism, uræmia, and the "seizures" of G.P.I.; in **old age** remember "Stokes-Adams" disease.

Always think of epilepsy in a case of repeated "**fainting fits**."

Suspect nocturnal epilepsy in a patient who occasionally on waking finds he has wetted the bed, or passed fæces; or in one who wakes with a bitten tongue or with small petechial spots on face, neck and chest.

The diagnosis from hysteria is often difficult. Gowers' table of distinction is useful:—

	EPILEPTIC.	HYSTEROID.
<i>Apparent cause</i>	None.	Emotion.
<i>Warning.</i>	Any, but especially unilateral or epigastric auræ.	Palpitation, malaise, choking, bilateral foot aura.
<i>Onset.</i>	Always sudden.	Often gradual.
<i>Scream.</i>	At onset.	During course.
<i>Convulsions.</i>	Rigidity followed by "jerk- ing," rarely rigidity alone	Rigidity or "struggling," throwing about of limbs or head, arching of back.
<i>Biting.</i>	Tongue.	Lips, hands, or other people.
<i>Micturition.</i>	Frequent.	Never.
<i>Defæcation.</i>	Occasional.	Never,
<i>Talking.</i>	Never.	Frequent.
<i>Duration.</i>	A few minutes.	More than ten minutes, often much longer.
<i>Restraint necessary.</i>	To prevent accident.	To control violence.
<i>Termination.</i>	Spontaneous.	Spontaneous or induced (water, etc.)

Always remember that a **maniacal attack** may replace or follow a fit in a chronic epileptic.

Death in a fit is very rare; but the so-called **status epilepticus**, in which fits rapidly succeed one another, is often fatal. Treat with enemata of chloral or an injection of morphia.

Repeated epileptic attacks tend towards **mental enfeeblement**.

The **general treatment** includes careful regulation of the patient's life to avoid stress; suitable work, and general hygienic measures. Forbid all alcohol absolutely, and restrict butcher's meat.

The **drug treatment** consists in the regular administration of bromides in full doses; begin with 20 grains of potassium bromide three times daily, and increase if necessary. Continue bromide for 18 months after the last fit. If there is any marked periodicity about the attacks (*e.g.*, at night) give a large dose 3 to 4 hours before the expected attack. Give a small dose of arsenic with each to prevent "bromide rashes"; it is a good plan during a course of bromides to

suspend their use for one day a week. Remember bromides are less "depressing" than epileptic attacks.

Petit mal is much less amenable to the bromide treatment.

As regards **prognosis** remember:—

1. A considerable percentage of cases recover under persistent treatment by bromides.

2. The younger the age at which the fits start the worst the prognosis.

3. Frequent repetition of attacks is a worse omen than their severity.

4. Presence of grand mal and petit mal in the same patient is a bad sign.

HEADACHE.

Headache is a symptom, not a disease. It may arise from a multitude of causes and vary infinitely in its manifestations. Always enquire carefully into its locality, character, and severity, as useful hints may thus be elicited as to its cause.

In all cases of continuous headache of sudden onset, always take the **temperature**; it is a common early symptom of typhoid fever.

Always examine the **scalp** and **skull**

carefully for local signs. You may find periostitis, gummata, erysipelas.

Never omit to test the **urine**; chronic headache is a common manifestation of uræmia.

In all cases without obvious cause have **the sight** carefully tested.

Headache associated with vomiting suggests **organic brain disease**. In such cases examine the fundi for optic neuritis.

Remember the throbbing headache of **high tension** often associated with chronic renal and cardiac disease.

The headache of **migraine** is usually unilateral, paroxysmal, and associated with disorder of vision.

Headache is a common feature of many so-called functional disorders. such as **neurasthenia** and **hysteria**. Hesitate to diagnose these until you have excluded organic disease.

Never treat a headache until you have at least attempted to diagnose its cause.

INSOMNIA.

Do not accept as necessarily true your patient's statements as to how long they have or have not slept.

If a patient does not sleep there is **usually a cause** for it. The treatment of insomnia mainly resolves itself into the detection and removal of such cause.

The **causes vary** indefinitely. Such slight matters as a noisy clock, cold feet, heavy suppers, over-exertion, too long abstinence from food before bedtime, are familiar and easily-remedied examples. Mental anxiety or overstrain is less easy to combat. Remember sleeplessness is sometimes an early symptom of **melancholia**.

A **warm bath** is often an excellent and always harmless hypnotic.

In **chorea** sleep is all-important, and must be obtained at all costs. Try a little stimulant and a warm pack before resorting to hypnotics.

In old people sleeplessness (especially after 5 a.m.) is a common concomitant of **arteriosclerosis**.

In typhoid and acute disease sleeplessness may be due to **over-stimulation** with alcohol.

Never give drugs to procure sleep unless absolutely necessary.

Morphia must not be resorted to for sleeplessness unless the relief of pain is imperative. Whenever permissible give it by mouth.

Of the **hypnotics** paraldehyde is the least harmful. One teaspoonful every hour for 3 or 4 doses is usually effectual; mask its nauseous taste.

Always remember the **danger** of starting a drug-habit when prescribing hypnotics.

COMA.

Coma of sudden onset in this country is probably due to one of the following **causes**: cerebral hæmorrhage, head injury, epilepsy, uræmia, diabetes, alcohol, opium, sunstroke, cerebral syphilis, G.P.I., or some narcotic poison.

In hospital practice **never** send away an unconscious patient as a case of alcoholism only.

Never treat such a case as one of alcoholic coma, merely because the breath smells of alcohol. Remember anxious friends always pour stimulants into or about the mouths of these cases. Moreover alcoholism frequently

co-exists with one of the other causes of coma.

Always draw off the urine and examine for albumin and sugar. Remember sugar may occasionally be absent in cases of diabetic coma.

Examine the fundi for signs of chronic nephritis.

Be careful in washing out the stomach of any unconscious patient; it is possible to pass the tube into the larynx.

Do not give pilocarpine in coma; remember its tendency to increase bronchial secretion.

Fixed and dilated pupils are always of grave import.

SCIATICA.

“Sciatica” is a frequent diagnosis; true primary sciatica is comparatively rare.

Never forget that a majority of cases of so-called “sciatica” are due to organic disease. In all cases examine carefully:

1. The seat of pain (local abscess, etc.)
2. The hip and sacro-iliac joints (osteo-arthritis, tubercle).

3. The abdomen (tumours).
4. The pelvis (growths of bones, etc.)
5. The rectum (enlarged prostate, carcinoma).
6. The urine (albumin, sugar).
7. The knee-jerks (neuritis, cord disease).

In cases where no organic cause is found, give a guarded **prognosis**. Recovery is often protracted.

Local treatment (in the absence of a definite cause) gives the best results; try blisters, local hypodermic injections of water, etc., acupuncture, galvanism. In protracted cases rest and fixation of the limb with a long splint should be tried.

Double sciatica suggests a cord lesion.

LUMBAGO.

Do not hastily dismiss pain across the loins as lumbago. Too many cases of caries, local abscess, aneurism, and new growth have thus been missed. Always examine the seat of pain, spine, urine, and abdomen.

The **characteristics** of lumbago are :—

1. Sudden onset.
2. Bilateral pain aggravated by use of affected muscles.
3. Absence of any constitutional disturbance.
4. Entirely relieved by lying down.

The treatment is **rest** and **local applications**: *e.g.*, liniments, massage, blisters, acupuncture. Internal medication is notoriously uncertain. In chronic cases try guaiacum, iodides, and colchicum.

INCONTINENCE OF URINE IN CHILDREN.

Remember there is always a cause; nearly always a curable one.

First ascertain: is the incontinence constant, or only at night?

If **constant**, there is probably some organic defect in urinary passages or nervous mechanism (malformations, spinal cord disease, distended bladder with overflow from obstruction). Incontinence occurring **only at night** suggests that the apparatus is perfect, but is too often excited (hyper-acid urine, cystitis, stone, tight prepuce, contracted

meatus, rectal worms, the semi-asphyxial conditions provoked by enlarged tonsils or adenoids, masturbation, etc.)

True polyuria (diabetes insipidus, free drinking, chronic renal disease) may be the explanation of bed-wetting.

Belladonna to be of use must be given in full doses, and increased till physiological effects are produced. Remember children are not readily susceptible to this drug.

Punishment is never proper treatment.

LEAD-POISONING.

Remember the characteristic "blue" line on the gums; note that it is blue-black in colour, consists of closely-apposed dots, is in the gum, and is only seen where there are teeth.

Always think of plumbism as the possible key to progressive anæmia, severe abdominal pain, sudden mania, or peripheral paralysis.

Abdominal pain in a subject of lead-poisoning may be due to other causes than plumbism. **Examine the belly** carefully to exclude other acute affections.

Cerebral symptoms (delirium, mania, etc.), and especially repeated convulsions, are always of grave import.

Chronic plumbism is not limited to workers in lead. **Accidental poisoning** may occur; drinking water, cider, cosmetics, are possible sources.

Note that gouty subjects are readily affected by lead, and that **gout** is frequent in those suffering from chronic lead-poisoning.

Chronic plumbism is a definite cause of granular kidney.

Remember "**lead-palsy**": there are various types of it, but the commonest is that which affects the muscles supplied by the musculo-spiral nerve in the forearm; it is usually symmetrical. Occasionally the "**wrist-drop**" thus produced is permanent.

ALCOHOLISM.

Remember the **varying clinical pictures** of alcoholic poisoning:—

1. **True dipsomania**: a form of insanity, usually hereditary. Between the bouts the patient is quite sane and dislikes alcohol.

2. Acute alcoholism: phenomena varying from ordinary intoxication to dangerous coma.

3. Delirium tremens: always due to chronic alcoholism, but the attack usually precipitated by some acute stress (a debauch, acute illness, injury, operation).

4. Chronic alcoholism: often thinly disguised as cirrhotic liver, peripheral neuritis, granular kidney, or other less definite but characteristic conditions.

Of alcohol it may truly be said, "What is one man's meat is another man's poison." The dose varies with the personal equation.

Gross obesity and marked emaciation are alike common.

"Morning vomiting," fine muscular tremors, and no appetite for breakfast are always suggestive symptoms.

Learn to recognize the alcoholic facies, but remember a red nose is not necessarily due to alcohol.

Men sometimes, but women never, are truthful as to their alcoholic indulgence.

Chronic drunkards are peculiarly

liable to tubercle, and stand badly any form of disease, acute or chronic.

In **delirium tremens** be careful with hypnotics. Feeding is of the first importance. Remember the natural tendency of the disease is to sleep after three or four days ; never leave him alone ; suicide or homicide are real dangers.

The treatment of a chronic alcoholic consists in immediate and absolute **deprivation of alcohol** in any form ; the rest is common sense.

Remember it is "never too late to mend."

ALCOHOLIC PERIPHERAL NEURITIS.

Symmetrical peripheral neuritis may arise from a variety of **causes**, of which five are common in England : (1) Result of specific fevers, especially diphtheria, influenza, typhoid ; (2) Chronic alcoholism ; (3) Chronic plumbism ; (4) Chronic arsenical poisoning ; (5) Chronic glycosuria.

Alcoholic neuritis usually takes the form of a **bilateral extensor paralysis**

of arms and legs; the legs are first and most affected. The affected nerves and muscles are often tender to pressure, and there is patchy hyperæsthesia and anæsthesia. The subjects are usually women.

The affected muscles soon waste, may become absolutely paralysed, and often show the reaction of degeneration.

Shooting pains and "cramps" are a common early symptom.

The **knee-jerks** are as a rule abolished; but in the early stage they may be exaggerated.

The **mental state** is often characteristic; night delirium, hallucinations, and loss of memory for recent events are common.

Never forget the danger of implication of vagus or phrenic nerves. Watch pulse-rate and diaphragm movement; death from such causes is not rare.

The **prognosis** for complete recovery must always be guarded; in bad cases beware of contractures.

Place no reliance on the patient's denial of alcoholism; the diagnosis must be made from the symptoms and

signs. Other evidences of alcoholism, such as condition of tongue, general tremor, etc., are usually present.

The **treatment** consists in removing the poison, rest in bed, feeding, and good nursing. In the acute stages give as few drugs as possible; later, massage and strychnine hypodermically are useful.

TABES DORSALIS.

The only certain cause of tabes is syphilis. Tabetic symptoms may come on within two years, or be delayed till twenty years after the infection.

Remember the relationship between tabes and general paralysis; both are "parasymphilitic" manifestations. Some authorities believe these two diseases to be the same morbid process attacking different parts of the nervous system. About 10 per cent of tabetics end as general paralytics.

"Lightning"-pains are among the commonest early symptoms; they usually affect the legs, but may occur in arms, trunk, or head. Bear in mind that all pains without obvious cause are not "rheumatic."

Minutely-contracted pupils (spinal myosis) should always make you think of tabes.

Diplopia is a common early symptom.

The **Argyll-Robertson** pupil (no response to light, but contracts during accommodation) is characteristic of tabes or general paralysis; it is present in 80 per cent of all cases of tabes.

Optic atrophy causing failing sight is sometimes the first complaint; it is a primary atrophy, and usually leads to complete blindness. In cases with optic atrophy, ataxic symptoms are often delayed.

The **knee-jerks** are abolished early in the majority of cases; exceptionally they may be present.

Remember **perforating ulcer** of foot, a difficulty in emptying bladder, or the sudden **paralysis** of one or more **eye-muscles**, may be the cause which first leads a tabetic to seek advice.

Do not forget that, although tabes is an incurable disease, the duration and **progress** of a case varies within wide limits. Some remain stationary for long periods, and the stage of inco-

ordination may be years in developing; others progress rapidly. Do not be hasty or over-gloomy in your prognosis.

Always give a vigorous course of anti-syphilitic remedies if the tabetic symptoms have appeared within three years of the attack of syphilis.

MENINGITIS.

In acute meningitis the underlying brain substance is always affected; the condition is really a **meningo-encephalitis**.

Remember there is **no pathognomonic** sign of meningitis; all its signs and symptoms may be imitated by meningeal irritation arising in the course of many of the specific fevers.

The **cardinal signs** are headache, pyrexia, vomiting, constipation, head-retraction, and optic neuritis; these are variably accompanied by convulsions, paralysis, delirium, rigidities, etc., according to the cause of the meningitis and the extent to which it affects cortex, base, or spinal meninges.

In all cases **seek the cause**. Examine ears, nose, and skull for septic focus;

search the body for a tuberculous nidus. Treatment and prognosis are impossible without a knowledge of the cause.

Acute septic meningitis arises by extension from disease of skull-bones, etc., or in any form of pyæmia; it may be unilateral or bilateral, and is mainly cortical. Pyrexia is high and irregular. The cardinal signs are well marked, but optic neuritis is often absent; this is the most acute and rapidly fatal of all forms. **Make certain** there is no local intracranial abscess or septic thrombosis of lateral sinus. Surgical treatment is the only hope.

Tuberculous meningitis is always secondary to a tuberculous focus elsewhere; the onset is insidious, with malaise, headache, irregular vomiting, constipation, and slight pyrexia; later come the evidences of cerebral irritation, such as photophobia, "curled-up" attitude, retracted head, convulsions, scaphoid abdomen, irregular pulse; gradually the picture becomes that of cerebral compression, *e.g.*, deepening coma, optic neuritis, slow pulse, paralysis of cranial nerves, incontinence. **Look**

for tubercles in the choroid as the one certain sign ; these cases are always fatal.

Cerebrospinal meningitis is a special form due to a specific micro-organism ; its characteristic features include a tendency to appear in epidemics ; common occurrence in quite young children ; frequently follows or is accompanied by pulmonary disease ; head-retraction is extreme, and optic neuritis is rare ; the meninges of the cord are specially affected, and many cases **recover** after weeks or even months.

Do not rely on **Kernig's sign** : it is often, but not always, present, and may be found in other conditions.

Lumbar puncture and bacteriological examination of the fluid obtained is a valuable aid to diagnosis ; it often relieves the symptoms.

The "*tache cérébrale*" is of no diagnostic importance.

HEMIPLEGIA.

Hemiplegia in adults has **six common causes** ; (1) Hæmorrhage ; (2) Thrombosis ; (3) Embolism ; (4) Tumour ; (5) Abscess ; (6) Hysteria.

In **hæmorrhage** the onset is sudden and often follows slight exertion; consciousness is usually lost; the arteries show atheroma or arteriosclerosis. The heart may be hypertrophied, and the usual signs of granular kidney are present. Examine the fundi for retinal hæmorrhages and albuminuric retinitis.

Thrombosis is commonest in the aged; the onset frequently occurs during rest, *e.g.*, at night; loss of consciousness is not constant. There is often a history of premonitory symptoms (headache, incoherence, etc.)

Embolic hemiplegia is of sudden onset. Consciousness may or may not be lost. The source of the embolus will be found on examination. Mitral stenosis is the most frequent.

In **cerebral tumour** the classical signs—headache, vomiting, double optic neuritis—may be present. The hemiplegia is of characteristically **slow onset**.

In **cerebral abscess** its cause—ear disease, injury, or suppuration elsewhere—will usually be present.

Always hesitate to diagnose "hysterical" hemiplegia; remember

there are no symptoms pathognomonic of functional paralysis.

Remember that repeated convulsions always suggest a **cortical** lesion.

Hemiplegia in a patient under forty, in whom there is no sign of heart, brain, or kidney disease, is probably due to thrombosis of syphilitic arteries.

Treatment at the onset depends on the cause: if you suspect syphilis, start iodide of potassium and mercury at once in full doses. To lower arterial tension must be your aim in hæmorrhage cases. Anti-syphilitic remedies or an operation are the only choice in tumour. A cerebral abscess demands surgical treatment.

Treatment in the later stages is limited to overcoming rigidity and increasing the returning power; massage and faradism are useful.

Do not promise complete recovery in **syphilitic cases**; permanent paresis is common.

Improvement in a hemiplegia (of organic origin) after six months is not to be expected. Secondary contractures are permanent and incurable.

Beware of bed-sores.

Remember that **retention of urine** is common, especially at the onset; examine the abdomen for a possible distended bladder at each visit.

CHOREA.

Chorea is a condition of **instability** of cerebral centres; it may arise from a **variety of causes**; the rheumatic poison is probably the commonest, but fright, emotion, school-pressure, the stress of a surgical operation, the mental worry of an approaching confinement, are instances of other exciting agents. It is most frequent in children of a nervous type with a rheumatic family history. Multiple attacks are common.

Do not regard all jerky movements as chorea. Remember the **characteristics** of true choreic movements: Irregular, spontaneous, frequent, large, not repetitive, exaggerated on excitement, and ceasing during sleep.

In adult females always think of **pregnancy** as a possible exciting cause.

Examine carefully for evidences of past or present **rheumatism**. Remember

in children rheumatic manifestations are often very slight. Look for rheumatic nodules ; if present, these usually herald heart trouble.

Watch the heart carefully and examine frequently ; pericarditis may occur ; the mitral valve is often permanently injured.

Paresis is common, and may be a prominent feature.

Excessive movement, sleeplessness, emaciation, loss of speech, and incontinence are **danger signals** in chorea.

Pyrexia usually means cardiac complications.

Recovery is the rule in children ; an average attack lasts three months.

The **treatment** depends upon the cause, severity, and chronicity of the case. Rest in bed is imperative in severe and acute cases ; over-feeding and abundance of sleep are necessary for all ; seclusion is often helpful. If there is evidence of present or quite recent rheumatism, give salicylates. Apart from rheumatic cases, there is no specific treatment.

Remember a little alcohol, packs, and

chloral as your best **hypnotics**; in very severe cases light anæsthesia with chloroform or A.C.E. mixture may be necessary to give sleep.

DISEASES OF JOINTS.

GENERAL RULES IN JOINT DISEASE.

Pain about a joint does not necessarily mean disease of that joint: it may be referred from elsewhere.

Do not diagnose all obscure arthritis as “**rheumatic**”; remember tubercle, gonorrhœal arthritis, and “**Charcot’s joint**” as common traps for the unwary.

In any doubtful joint case get a **skigram** taken.

Beware of diagnosing joint trouble as “**hysterical**”; remember so-called hysterical patients are liable to organic disease.

In every case of acute arthritis, consider the possibility of **suppurative arthritis**; remember the terrible consequences of a mistake. If in doubt, aspirate the joint, with strict antiseptic precautions.

In examining a joint, study to answer the question, What part is affected—bones, synovial membrane, cartilage, peri-articular structures—one or all?

ACUTE RHEUMATISM.

A first attack of acute rheumatism is very rare after the age of thirty. Think of gout or osteo-arthritis.

Remember the arthritis of true rheumatism has two characteristics: (a) Poly-arthritic; (b) Migratory (*i.e.*, flies from joint to joint). In the absence of these hesitate to diagnose an arthritis as rheumatic.

Do not forget that in children, especially, an attack of acute rheumatism is not necessarily arthritic; tonsillitis, “growing” pains, chorea, or simply febrile attacks with marked anæmia may be its clinical equivalents.

Always examine for rheumatic nodules; when present, look on them as “storm-signals” indicative of a severe dose of the rheumatic poison.

Watch for heart trouble.

Never diagnose an arthritis in a young man as rheumatic, without excluding gonorrhœal arthritis.

Examine the heart daily; the younger the patient the more likely is the heart to be affected; with each attack this risk increases.

Never forget the possibility of **hyperpyrexia**; its only effective treatment is the cold bath.

Continue **salicylates** for at least a week after pain and pyrexia have ceased; stop them gradually if you would avoid relapses.

In a case of supposed "rheumatic" arthritis which does not yield to salicylates, examine carefully for **grating** in the joints; remember that evidence of joint-degeneration points to osteoarthritis.

GOUT.

Gout is a **disease of metabolism**, but the exact nature of the metabolic disturbance is unknown. The inflamed joints are simply the seat of the peccant **uric acid** (biurate of soda).

Remember that the typical glazed, red, inflamed **big-toe joint** only is seen during the first few attacks; in later attacks the knee, wrist, or other affected joint is but rarely red or œdematous.

Be careful not to mistake **cellulitis** of the foot for gout, or *vice versa*.

Look for **tophi** in the ears as conclusive evidence of a gouty past.

Never forget that **the danger in gout** is the contracted or granular kidney.

Do not call every symptom in a gouty subject "gouty."

OSTEO-ARTHRITIS.

Remember osteo-arthritis is a **de-generation** *ab initio*; there is always structural defect, and the joint therefore can never become perfect again.

Never promise a cure: relief of pain, increase of mobility in affected joints, and arrest of extension, is the utmost to be hoped for.

In young patients give a guarded **prognosis**; it is never possible to say how many joints may become affected.

Be careful not to rest the joints **too long**. Counter-irritation, massage, and passive movement give the best results.

Remember osteo-arthritis, as a rule, threatens **no danger to life**.

DISEASES OF THE DIGESTIVE SYSTEM.

EXAMINATION OF ABDOMEN.

In every case first inspect the bared abdomen in a good light.

Be certain your hands are warm before palpating.

Palpate methodically one area after another.

Use both hands.

Never omit to palpate each loin—one hand in front, the other behind.

In palpating use the palms of your hands: do not prod with the finger-tips.

Always examine with your patient's knees flexed.

Remember that, with the exception of the pregnant uterus, and sometimes the liver in children, anything that can be palpated in the belly is abnormal.

Aortic pulsation is often very marked in nervous women. Abdominal aneurism is always rare.

Visible peristalsis always suggests obstruction.

ABDOMINAL TUMOURS.

The differential diagnosis of abdominal tumours is often one of the most difficult problems of practical medicine. In every case remember **four prime questions** to be answered:—

1. Is there a tumour?
2. Is it in the abdomen or in the belly-wall?
3. Where is it growing from?
4. What is its nature?

Use **every method** of examination—palpation, percussion, auscultation, and mensuration—before attempting your diagnosis.

Pass a **catheter** in any case of abdominal tumour rising from below the umbilicus; this treatment has instantly and permanently cured many large tumours.

A single woman and a **pregnant uterus** is not an impossible combination.

A **pulsating tumour** in the belly is common. An abdominal aneurism is rare. The pulsation is often transmitted.

Do not forget the existence of “**phantom**” tumours.

Always examine the rectum in every case of abdominal tumour.

In any case of doubtful nature, remember the possibility of **fæcal masses**. Aperients have removed more "tumours" than surgery.

In **obscure cases** examination in the "knee-elbow" position and under an anæsthetic, should never be omitted.

CONSTIPATION.

Constipation is a relative term variously understood by different individuals. There is no eleventh commandment that the bowels must act once within each twenty-four hours. Constipation without symptoms requires no treatment.

Purgatives only temporarily relieve constipation; proper treatment involves the detection of the cause.

Never treat a patient suffering from abdominal pain and constipation without excluding the presence of **intestinal obstruction**.

Examine per rectum all cases of gradually-increasing constipation; stricture or growth may be the unsuspected cause.

“**Spurious**” diarrhœa is a common symptom of long-abiding constipation.

In chronic constipation habitual purgatives are a last resource ; exercise and proper diet are sheet-anchors.

Avoid habitual enemata.

Carelessness in obeying the calls of nature and a too dry dietary are **common sources** of chronic costiveness.

DIARRHŒA.

Diarrhœa is a term in common use, loosely applied to conditions of varying severity. It may arise from a host of causes, but is usually due to an abnormal condition of bowel contents or mucous membrane. Diarrhœa is frequently a **symptom** ; occasionally a **disease** in itself ; sometimes a **curative process**.

Never treat without ascertaining its cause.

Whenever possible, **inspect the motions** yourself ; examine in a flat dish under water. Blood, parasites, portions of mucous membrane, etc., may be found.

Judge of its **severity** by amount lost

and symptoms produced, not by the number of evacuations.

Chronic diarrhœa always demands a rectal examination ; think of ulceration, stricture, or new growth.

Rest in bed and warmth are essentials in the **treatment** of all severe cases of diarrhœa.

ABDOMINAL PAIN.

Pain in the belly of sufficient severity to demand professional advice, always demands a **careful physical examination** of the abdomen.

Investigate carefully the **character of the pain** as a guide to its cause. Is it superficial or deep, intermittent or constant, "dull" or "cutting" ? etc.

Remember the **site** of belly-pain is not necessarily the seat of its cause. Pain about the umbilicus may be "referred" from a strangulated hernia. Acute pleurisy often gives rise to severe abdominal pain. "Belly-ache" may be an early symptom of spinal caries.

Judge of its **severity** by effect on pulse, facies, etc. of patient, not by the vehemence of his protestations.

Never omit to examine gums for the "blue-line" of **lead-poisoning**, in anomalous cases of severe abdominal pain.

Test knee-jerks and pupils in doubtful cases. The "crises" of **tabes dorsalis** are common traps for the unwary.

In acute abdominal disease the **pulse-rate** is the barometer of the physician.

It is a professional crime to give **opium or morphia** for belly-pain without first diagnosing its cause.

In females, persistent abdominal pain below the umbilicus demands a careful **examination of the pelvis**.

VOMITING.

Vomiting is a **symptom**, not a disease.

Do not treat it till you have made up your mind as to its cause.

Repeated vomiting may arise from disease of the stomach (ulcer, growth, gastritis, etc.), but it is as often a symptom of organic disease in other organs.

Remember **three great varieties** of repeated vomiting apart from stomach disease:—

1. **Cerebral** (meningitis, cerebral tumour, gastric "crises" of tabes dorsalis).

2. **Uræmia** (chronic Bright's).

3. **Peritoneal** (intestinal obstruction, peritonitis).

In women, repeated vomiting is common in **early pregnancy**.

In obscure cases **irritant poisons**, accidentally or intentionally administered, may be the cause.

Always **examine the vomit** yourself; make quite certain the "vomit" is not regurgitated food from an obstructed œsophagus.

Absence of **free hydrochloric acid** in vomit is commonest in cancer of the stomach.

Carefully examine the **lungs** for signs of phthisis, before concluding that habitual vomiting is merely due to functional disease of the stomach.

GASTRIC ULCER.

Stomach ulcers **vary** in cause, size, situation, and effects, as widely as ulcers on the body-surface.

All **stomach ulcers** are serious, for three main reasons:—

1. The constant presence of food and gastric juice delays healing.

2. The ever-present risk of perforation of stomach wall.

3. The danger of severe hæmorrhage from an eroded vessel.

Not every stomach ulcer bleeds. Do not wait for hæmatemesis as necessary for your diagnosis.

Gastric ulcer is not a monopoly of anæmic girls: men and women in middle life are often affected.

Hyperacidity of stomach contents is the rule in ulcer.

A streak of bright-red blood in vomited matter rarely means bleeding from the stomach.

Repeated hæmatemesis demands the consideration of surgical interference.

Severe hæmatemesis should be **treated** with absolute rest, a full dose of morphia hypodermically, and rectal feeding. Give nothing by the mouth.

Perforation is a catastrophe shouting for immediate laparotomy; delay is criminal.

DILATED STOMACH.

Distinguish between a dilated stomach and a merely "big" stomach.

Stomachs are not like ready-made boots, only made in certain sizes.

A dilated stomach implies a volume of the organ excessive in proportion to its work : it **means stagnation** of food.

A dilated stomach in a wasted patient is not always due to cancer.

Chronic dilatation of stomach arises from two main **causes** :—

1. **Narrowing of pylorus** (growth, pressure from without, healed ulcer, etc.).

2. **Weak walls** (repeated over-filling, wasting diseases, alcoholism, etc.).

Remember the **seven signs** of a dilated stomach :—

1. Prominence on inspection.

2. Visible peristalsis from left to right.

3. “Air-cushion” feeling on palpation.

4. “Splashing” elicited three hours after a meal.

5. Increased area of stomach-resonance as tested by auscultatory percussion and inflation.

6. Characteristic vomiting (long intervals, “spouting” huge quantities).

7. Characteristic vomit (three layers, sour and brown ; sarcinæ, etc., present).

Remember **enteroptosis** ; in this

common condition the stomach is often displaced downwards, and may thus give some of the signs of a dilated stomach. The two conditions can only be distinguished by inflation.

LAVAGE.

Be sure there is no aneurism before you pass a stomach-tube.

Make certain your tube is not blocked before using it.

It is unnecessary to apply any lubricant to the tube.

Reassure your patient: direct him to keep on swallowing while the tube is being passed.

Plain warm water is the best "washer."

Avoid force, flurry, and fumbling fingers, and your own difficulties and your patient's anxiety will vanish.

INTESTINAL WORMS.

There are no characteristic symptoms produced by worms: their presence may be associated with dyspeptic symptoms or nervous phenomena; often there are none.

The diagnosis of these parasites is only made by the discovery of the worm, its segments, or ova in the stools.

Thread-worms (*oxyuris vermicularis*) inhabit the rectum or lower part of the colon ; they often cause irritation about the anus, and sometimes vulvovaginitis. They are about $\frac{1}{4}$ inch long, and are commonest in children. Cure by local injections of strong salt and water, weak carbolic acid, or infusion of quassia. Repeat the injections for ten days, and give 1 grain each of santonin and calomel every other night. Apply dilute ammoniated mercury about anus to prevent migration and re-infection.

Round worms (*lumbricus ascaroides*) occur chiefly in children ; resemble pale garden worms ; inhabit upper part of small intestine, but occasionally migrate into stomach and other parts. Cure with santonin ($\frac{1}{2}$ to 2 grains for a child) followed by a calomel purge.

Tape-worm (*Tænia*). There are several varieties, but the commonest in England is *Tænia mediocanellata*. All require a double host, and *T. mediocanellata* usually enters the body in beef,

where it exists in the "bladder" form ; generally single. The head of the worm attaches itself to the mucous membrane of the duodenum, whence it grows to a length of several feet. The diagnosis can only be made by the presence of the whitish, flat segments (proglottides) in the stools. Treat with 2 drachms of the ethereal extract of male fern, given fasting after a preliminary aperient, and followed in four hours by a brisk purge. Search the stools carefully, for the head, before pronouncing a cure. If the head is not killed, look for segments again in the stools in three months' time.

Be careful with **santonin** in children : it is apt to cause toxic symptoms, and especially yellow vision.

Thread worms occasionally seem to cause nocturnal enuresis in children.

SOME GENERAL DISEASES.

GLYCOSURIA AND DIABETES.

Always examine the urine for sugar in cases of emaciation without obvious cause, carbuncle, recurring boils, double cataract, pruritus vulvæ, intractable

ulcer of sole of foot, excessive thirst or appetite, and polyuria.

A normal specific gravity does **not** necessarily guarantee that the urine is free from sugar.

Be sure your Fehling's solution is fresh; stale Fehling's solution may give the reaction without any sugar; therefore **always boil your Fehling first** before adding any of the suspected urine.

Certain **drugs** (nitrate of amyl, chloral, morphia, salicylic acid, chloroform, etc.) may give rise to **glycuronic acid** in the urine. Glycuronic acid reduces Fehling's solution, therefore do **not always** conclude that urine which reduces Fehling contains sugar.

Glycosuria and diabetes are different diseases from a clinical point of view. It is conceivable that the metabolic error in each is the same, and that cases of glycosuria may drift into true diabetes. It is probable that varying causes may so affect metabolism as to produce diabetes. But clinically glycosuria is often curable, and always compatible with years of life. True diabetes varies in its acuteness, but its

course is progressively downwards. Glycosuria means only sugar in the urine. Abiding glycosuria, progressive emaciation, marked polyuria, and increased thirst must be present for a diagnosis of true diabetes. Therefore **never tell a patient he has diabetes because he has sugar in his urine: it may be only glycosuria.**

Cases of diabetes can be divided into **two groups** according to the effect of a carbohydrate-free diet: If this effects a disappearance of the sugar from the urine, the prognosis is good; if the sugar persists, the outlook is grave.

Whenever you find sugar in a urine, test immediately with an excess of **ferric chloride**; a burgundy-red colour shows the presence of diacetic acid. The presence of this reaction always means a very severe case, and that the patient is in immediate danger of diabetic coma.

Remember diabetics are especially **susceptible to all sorts of infections.** They bear any septic process badly, are very liable to boils and carbuncles, and fall an easy prey to the tubercle bacillus.

Avoid any surgical operation in a patient whose urine contains sugar; local suppuration or gangrene, and the onset of coma, are to be feared.

Always estimate the reduction in the sugar-output occasioned by careful dieting before administering drugs; in this way alone can the real value of the drugs employed be ascertained.

In severe cases make **no sudden change** in the diet; always diminish the carbohydrates gradually, otherwise you risk the precipitation of coma.

Give diabetics plenty of **fatty food**: it is the only nutritive constituent which cannot do them harm, for it never increases the output of sugar.

Prevent **constipation**; in bad cases it sometimes heralds coma.

Remember that **toast**, weight for weight, contains more carbohydrate than bread itself.

Strict diabetic dietary is a trying *menu*. In hospital practice there is truth in the saying that "all diabetics are liars."

Whenever the **ferric chloride reaction** is present in the urine, give

your patient large doses of **alkalies** to diminish the acidosis of his blood, which finally is the cause of coma.

In using any **substitute for bread**, test it yourself with iodide of starch; many contain large quantities of carbohydrate.

The younger the patient the worse the **prognosis**.

Peripheral neuritis is a frequent complication, and is not necessarily of grave import.

HYDATIDS.

Hydatid disease is commonest in **Australia**, but occurs frequently in this country, even in those who have never been abroad.

Hydatid cysts may be met with in **any part of the body**; the **liver** is most often affected.

The **physical signs** of a hydatid cyst are simply those of a bag of fluid; there is **no characteristic sign**. The "hydatid thrill" is quite unreliable.

A cystic tumour of the **liver** which is not the gall-bladder is usually a hydatid.

Hydatid fluid contains no albumin.

A **hydatid of the pleura** gives only the usual signs of a pleural effusion. Diagnose by a microscopical examination of the fluid.

Hydatids of the lung are usually fatal.

The only treatment for a hydatid cyst is operation. Aspiration and delay are equally dangerous.

EXOPHTHALMIC GOITRE.

A nervous woman with an enlarged thyroid is not necessarily a case of exophthalmic goître. Always **examine the thyroid carefully**, and remember growths and cysts are common, and require quite different treatment from Graves' disease.

The **cardinal signs** (exophthalmos, enlarged thyroid, tremors, and tachycardia) are not all present in every case. With persistent tachycardia and fine tremors without cause, in a young female adult, suspect exophthalmic goître.

Remember these patients bear **inter-current diseases** badly, especially

septic infections; they develop high, irregular pyrexia on slight provocation. Acute mania is sometimes fatal. Glycosuria is not rare, and is always of serious import.

The disease is **chronic**, and lasts for years; a proportion of the cases recover spontaneously.

Rest in bed, continuous cold to the thyroid, with bromides and belladonna internally, usually relieve the symptoms.

Operative interference of any kind involves grave risk.

MYXŒDEMA.

Remember myxœdema is **not** peculiar to women: it is more frequently undetected in men.

True myxœdema is due to a **cessation of function** of the thyroid gland; lesser degrees of this, when the thyroid is temporarily inactive, are probably commoner than is supposed.

Do not diagnose as myxœdema all cases in which you are unable to palpate the thyroid gland.

Never diagnose myxœdema without first examining the urine. A trace of

albumin is common in myxœdema, but subacute nephritis is the disease with which it is most commonly confounded.

In **treatment**, begin with a small dose of thyroid powder (2 to 5 grains twice a day) and increase as required. Weigh your patient every other day; a progressive loss of weight tells you the dose is adequate.

Remember all myxœdematous patients **feel the cold** intensely.

Watch carefully for the signs of an **overdose** of thyroid: Headache, rapid pulse, fine tremors, irregular pyrexia, and mental excitement. Temporarily suspend the drug on their appearance.

“Once on thyroid, always on thyroid” is not an invariable rule.

ENLARGED LIVER.

In children the normal liver may often be felt below the ribs.

In adults a liver felt below the ribs is abnormal.

Distinguish between enlarged and displaced livers; recognize by the upper limit of liver dullness.

Malignant disease of the liver is practically always secondary. Examine rectum, breasts, uterus, portal area, and testicles for the primary growth.

Cystic tumours of the liver (apart from distended gall-bladder) are hydatid in origin.

Do not expect always to be able to feel the irregularities of the edge of a carcinomatous liver.

JAUNDICE.

Jaundice is not visible by artificial light.

Every case of jaundice in a young subject is not "catarrhal."

Always inspect the **stools** of jaundiced patients; absence of colouring matter means obstructive jaundice.

Jaundice persisting and deepening for six weeks in a patient over forty, is probably due to **malignant disease**.

A **distended gall-bladder** associated with abiding jaundice usually has its origin in malignant disease.

Remember **cholæmia** as a possible danger in every case of jaundice; high, irregular temperature, hæmorrhages of

skin or mucous membranes, or cerebral symptoms, are its heralds.

Jaundiced patients are specially prone to hæmorrhage; before any operation on such, give a short course of calcium chloride.

The urine often shows the presence of bile before it is apparent in the skin or elsewhere.

A slow pulse and itching skin are the usual accompaniments of jaundice.

Beware of acute yellow atrophy.

GALL-STONES.

Gall-stones are commonest in fat females over forty; this is a rule with many exceptions.

In many cases gall-stones cause no symptoms and require no treatment.

The pain in biliary colic is generally above the umbilicus, whereas that of renal colic is usually below it.

Never be satisfied with a loose diagnosis of "gall-stones": try to ascertain their position, size, and number.

The repeated passage of gall-stones is sometimes followed by carcinoma of the gall-bladder or bile-passages.

If the pain of biliary colic be unbearable, give a few whiffs of **chloroform** in addition to the usual hypodermic injection of morphia, etc.

Repeated attacks of biliary colic demand surgical interference.

ASCITES.

Ascites is the accumulation of serous fluid in the peritoneal cavity. It is in every case a symptom, whose cause must be detected before any treatment be considered. Ascites may arise from **general causes** (progressive heart-failure, the œdema of kidney mischief, etc.) or **local causes** (any form of chronic peritonitis, liver cirrhosis, pressure on portal vein, abdominal tumours, etc.).

Shifting dullness in the flanks is its most characteristic sign; its presence means a considerable amount of ascites. When the level of dullness changes with the patient's position, there is either ascites or a loose-walled ovarian cyst.

Increasing ascites in a young patient without obvious cause should always suggest **tuberculous peritonitis**.

Always pass a **catheter** before tapping a belly.

In **tapping**, be sure that your trocar enters a spot dull to percussion. The intestines usually float upward, but a coil may be adherent and in danger of being wounded.

Remember the **tendency to collapse** caused by paracentesis abdominis. Aspirate slowly with a fine trocar, and, by means of a "many-tailed" bandage gradually tightened, keep up pressure on the abdominal contents.

Always palpate an abdomen shortly after tapping, since this is the opportunity for detecting abnormalities.

Carefully **examine the fluid** removed from a case of ascites, for a clue to its source.



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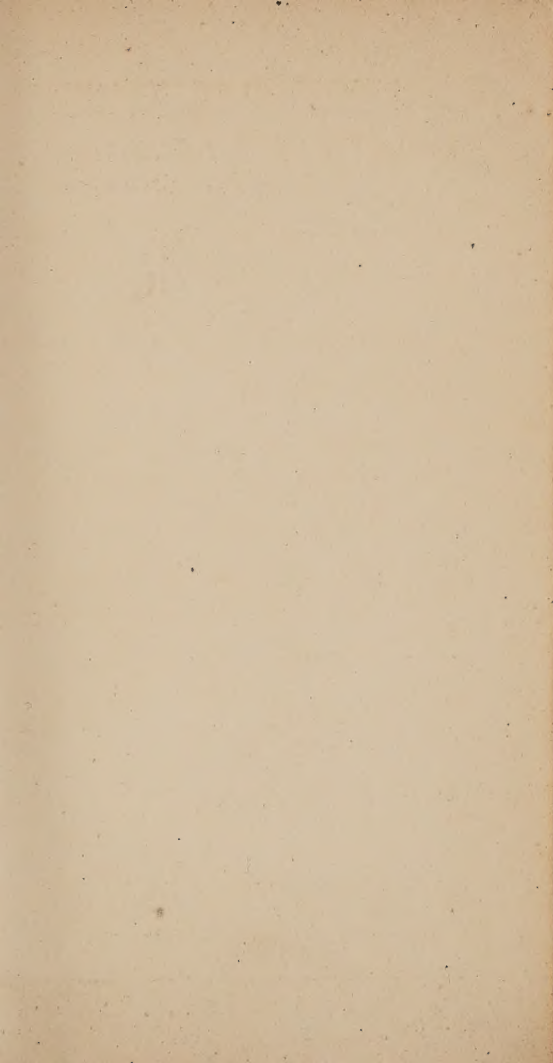
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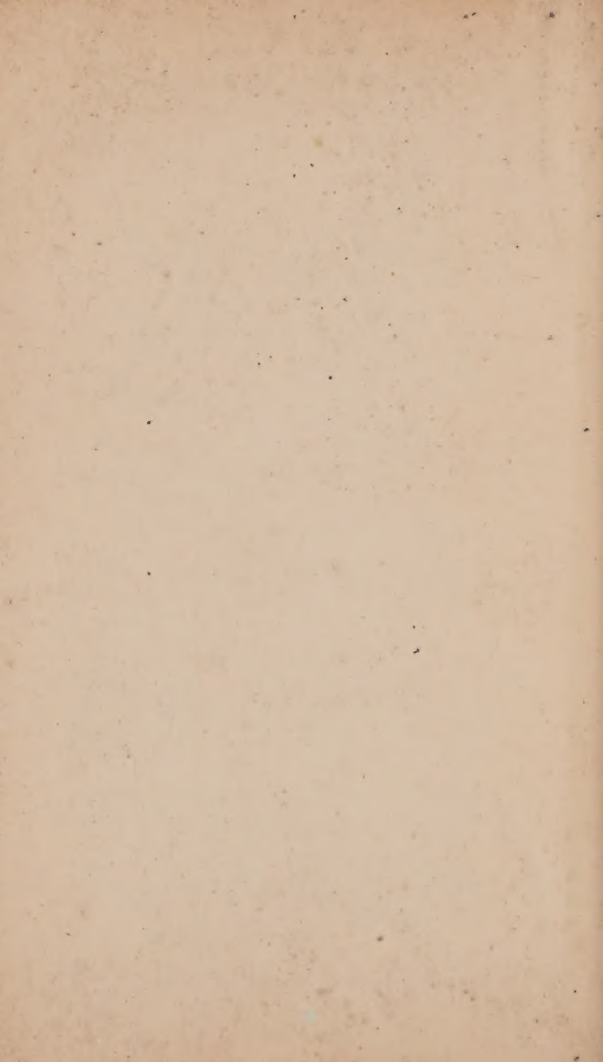
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